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FROM THE

UNITED STATES GOVERNMENT

THROUGH

Charles Moore

ANNUAL REPORTS

OF THE

WAR DEPARTMENT

FOR THE

FISCAL YEAR ENDED JUNE 30, 1900.

REPORT OF THE

LIEUTENANT-GENERAL COMMANDING THE ARMY.

IN SEVEN PARTS.

PART 1.

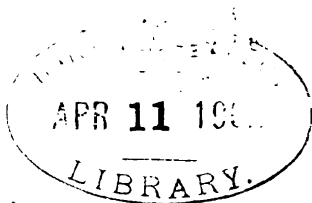
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ARRANGEMENT OF THE ANNUAL REPORTS OF THE WAR DEPARTMENT FOR THE YEAR ENDING JUNE 30, 1900,

VOLUME I. Parts 1-13.—Report of the Secretary of War and all other reports except those of the Chief of Engineers and the Chief of Ordnance.

VOLUME II. Parts 1-8.—Report of the Chief of Engineers.

VOLUME III. Report of the Chief of Ordnance.

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- Commissioners of National Military Parks:
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 - Gettysburg.
 - Shiloh.
 - Vicksburg.
- United States Military Academy, West Point, N. Y.:
 - Board of Visitors.
 - Superintendent.
- Soldiers' Home, District of Columbia:
 - Board of Commissioners.
 - Inspector-General, United States Army.
- National Home for Disabled Volunteer Soldiers.

Part 2.—Reports of Bureau Chiefs:

- Adjutant-General.
- Inspector-General.
- Judge-Advocate-General.
- Quartermaster-General.
- Acting Commissary-General of Subsistence.
- Surgeon-General.
- Paymaster-General.
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- Part 3.—Report of the Lieutenant-General Commanding the Army and Department Commanders:**
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Adjutant-General.
Inspector-General.
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Department of the Lakes.
Department of the Missouri.
Department of Texas.
Department of Dakota.
Department of the Colorado.
Department of California.
Department of the Columbia.
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Division of Cuba:
Department of Matanzas and Santa Clara.
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Infantry and Cavalry School.
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- Part 4.—Report of the Lieutenant-General Commanding the Army and Department Commanders—Continued.**
Department of Habana and military governor city of Habana.
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- Part 6.—Report of the Lieutenant-General Commanding the Army—Continued.**
Military operations in the Philippine Islands.
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- Part 10.—Report of the Military Governor of the Philippine Islands, on civil affairs.**
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ANNUAL REPORT

OF THE

LIEUTENANT-GENERAL COMMANDING THE ARMY.

HEADQUARTERS OF THE ARMY,
Washington, D. C., October 29, 1900.

SIR: I have the honor to submit herewith the following reports:

- Annual report of the Adjutant-General of the Army.
- Annual report of the Inspector-General of the Army.
- Annual report of Maj. Gen. John R. Brooke, U. S. A., commanding Department of the East.
- Annual report of Brig. Gen. Joseph Wheeler, U. S. A., commanding Department of the Lakes.
- Annual report of Brig. Gen. Henry C. Merriam, U. S. A., commanding Department of the Missouri.
- Annual report of Col. Chambers McKibbin, Twelfth U. S. Infantry, commanding Department of Texas.
- Annual report of Brig. Gen. James F. Wade, U. S. A., commanding Department of Dakota.
- Annual report of Brig. Gen. Henry C. Merriam, U. S. A., commanding Department of the Colorado.
- Annual report of Maj. Gen. William R. Shafter, U. S. V., commanding Department of California.
- Annual report of Maj. Gen. William R. Shafter, U. S. V., commanding Department of the Columbia.
- Annual report of Brig. Gen. George M. Randall, U. S. V., commanding Department of Alaska.
- Annual report of Maj. Gen. Leonard Wood, U. S. V., commanding Division of Cuba, embodying the final report of Brig. Gen. William Ludlow, U. S. A., of the Department of Habana, and as military governor of the city of Habana, Cuba; final report of Brig. Gen. James H. Wilson, U. S. V., of the Department of Matanzas and Santa Clara; annual report of Brig. Gen. Fitzhugh Lee, U. S. V., commanding Department of Western Cuba; annual report of Col. Samuel L. Whitside, Tenth U. S. Cavalry, commanding Department of Eastern Cuba.
- Annual report of Brig. Gen. George W. Davis, U. S. V., commanding Department of Porto Rico.
- Final report of Maj. Gen. Elwell S. Otis, U. S. V., as commanding general Department of the Pacific and Division of the Philippines, with miscellaneous reports of expeditions and operations in the Philippine Islands.
- Annual report of Maj. Gen. Arthur MacArthur, U. S. V., commanding the Division of the Philippines, embodying the annual report of Maj. Gen. Loyd Wheaton, U. S. V., commanding Department of Northern Luzon; annual report of Maj. Gen. J. C. Bates, U. S. V., commanding Department of Southern Luzon; annual report of

Brig. Gen. R. P. Hughes, U. S. V., commanding Department of the Visayas; annual report of Brig. Gen. W. A. Kobbé, U. S. V., commanding Department of Mindanao and Jolo; annual report of Brig. Gen. J. F. Bell, U. S. V., commanding provost guard, city of Manila; and miscellaneous reports of operations in the Philippine Islands.

Special report of Maj. Gen. Adna R. Chaffee, U. S. V., commanding United States troops in China.

Annual report of Capt. Robert N. Getty, First U. S. Infantry, commandant United States Infantry and Cavalry School.

Annual report of Lieut. Col. George B. Rodney, commandant Cavalry and Light Artillery School.

The reports above referred to give in detail the changes that have been made in the military service during the past year.

Under authority of the act of Congress, approved March 2, 1899, the Army of the United States was increased to approximately 65,000 men; and an auxiliary force of volunteers of 35,000 was organized, making a total military strength of 100,000 men.

At the date of my last annual report there were in the Philippine Islands 971 officers and 31,344 enlisted men; and there were en route for service in those islands 546 officers and 16,553 enlisted men—the latter force being principally in California. Since that time an additional force ordered to China was diverted to the Philippine Islands, making a total of 98,668 men sent to the archipelago. Of this number 15,000 volunteers, first sent to that country in 1898, together with the sick and disabled, have been returned to the United States, leaving at the present time in the islands, according to last report, 2,367 officers and 69,161 enlisted men. Fifteen hundred men have been left in China to act as a guard for the American legation in that country and for other purposes.

While these changes have been made, the force in Alaska has been increased to 41 officers and 1,088 enlisted men, and the force in Cuba reduced to 260 officers and 5,468 enlisted men, and in Porto Rico to 98 officers and 2,406 enlisted men, leaving 998 officers and 18,898 enlisted men in the United States (the lowest number since 1861), of which number there are 2,600 recruits under orders to fill regiments stationed without the limits of the United States.

The urgent demand for troops on remote stations has reduced the number in the United States to a much smaller force than has been maintained at any time during the last thirty-nine years. In fact, the number is so much reduced that at the present time there are not one-fourth enough troops to properly care for or man the fortifications which have been erected on the Atlantic, Pacific, and Gulf coasts at an expenditure of nearly \$55,000,000.

In addition to the artillery deficiency the present home force is not sufficient to properly occupy the interior garrisons or to protect life and property on the Western frontier, and, what is still more serious, the Government is left without the necessary reserve to relieve troops

from serving in tropical countries a longer period of time than would seem to be consistent with the preservation of their health and good condition.

THE CONDITION OF THE ARMY.

Considering the kind and character of the service that has been rendered by the United States Army during the past year in the different campaigns, engagements, and affairs in which it has participated, too much credit can not be given to it for maintaining under the most trying circumstances the same high standard of excellence that it has sustained for more than one hundred years.

This standard of efficiency is due to the training and strict discipline of West Point and to the high sense of honor that has been inculcated at that institution; to the practical and scientific instruction that the officers of the different arms of the service have received at the Artillery School, Fort Monroe, Va., at the Light Artillery and Cavalry School, Fort Riley, Kans., at the Infantry and Cavalry School, Fort Leavenworth, Kans., and to the valuable instruction and discipline imparted to the troops at every military station and in every military camp in the United States.

While the achievements of the Army and Navy during the Spanish-American war were most creditable to both branches of the service and highly gratifying to the country, yet the war was of such short duration that the Army had not sufficient opportunity to fully demonstrate its capacity and efficiency. Enough, however, was accomplished by the skill and fortitude of the troops to afford great satisfaction, not only to those in the service, but to all interested in the welfare of the Army. For the past three years the Army has been engaged in extensive field service, and has experienced in two hemispheres the many hardships of actual warfare. In the many affairs in which the troops have met an enemy in the field they have on all occasions and under all circumstances exhibited courage and stability, excellent marksmanship, and faithful devotion to duty.

During the past year the following-named gallant officers were either killed in action or died of wounds received in line of duty: Major General Lawton, Colonel Liscum, Majors Howard and Logan, Captains McGrath, Reilly, Mitchell, Warwick, Smith, Godfrey, Murphy, Crenshaw, French, Brown, and Bently, First Lieutenants Cheney, Ledyard, Koehler, Schench, Galleher, and Evans, and Second Lieutenants Boutelle, Keyes, Way, Cooper, Smith, Wagner, and Davis, together with a long list of brave soldiers, besides a large list of officers and soldiers who have died of disease incident to service in tropical countries.

These casualties bear evidence of the severity of the service in which the troops were engaged and of their heroism and fidelity.

During the past year the Army was called upon to perform an additional arduous and trying service, namely, the succor or rescue of the American legation besieged at the capital of the Chinese Empire. When the necessity for a military force in China arose the Ninth Regiment of Infantry was quickly moved from the Philippine Islands to Taku, China, and thence to Tientsin. In the battle of Tientsin the American troops were called upon to occupy and hold a most difficult position, in which they were subjected to a concentrated fire from Mauser rifles and machine guns in the hands of troops who had been instructed in their use, if not commanded at the time, by skilled European officers; and notwithstanding the severity of the fire and the serious loss in killed and wounded the troops maintained their position with the greatest spirit and fortitude. Indeed, it would be difficult to name any occasion on which troops engaged in action were better commanded, were more steady under fire, or where they made the soldier's sacrifice with more unselfish patriotism, or rendered a higher tribute to the honor of their country.

Colonel Liscum, their commander, fell while leading his troops, and it is fitting that especial mention should be made of his and their heroic service. Great reverence should be accorded the memory of Col. E. S. Liscum, commanding the Ninth Infantry, who, up to the time of his death, commanded his force with undaunted courage and marked ability.

After the death of Colonel Liscum the command of the American force engaged in the battle of Tientsin devolved upon Maj. Jesse M. Lee, of the Ninth Regiment of Infantry, who by his sound judgment in the disposition of his command and personal gallantry while directing the firing line in the advance and the successful withdrawal of his command at nightfall sustained the honorable reputation acquired by him during the civil and subsequent wars.

Two battalions of the Fourteenth Infantry, under command of Col. A. S. Daggett, and Battery F, Fifth Artillery, commanded by Captain Reilly, were dispatched from the Philippine Islands July 15, and the Sixth Cavalry was sent from San Francisco, July 3, to follow the advance of the Ninth Infantry; all the forces in China being placed under the command of Major-General Chaffee.

In the advance on Peking the American troops were conspicuous for their zeal and courage as well as for their excellent discipline and noble conduct under most trying circumstances. The heroism and fidelity of the American soldier was again demonstrated in the fall of Captain Reilly, of Battery F, who was killed in action at the capture of the Chinese capital. This officer was an ideal soldier, had a distinguished record for his services in the civil war and in Cuba, and, like Colonel Liscum, was without fear and without reproach.

During the past year the men of the volunteer force, authorized and located as previously indicated, have been sent to the Philippine Islands, where, in conjunction with the regular troops, they have rendered good service. Under an act of Congress, however, they will have to be withdrawn and discharged before the 1st of July, 1901. This necessity gives a very short term of service in the archipelago, and in order to meet the condition imposed by law and at the same time bring the volunteers back to the United States by the United States transport steamers—which are the only available means of transportation—it will be necessary to begin their return almost immediately.

Since the date of my last report the artillery school has been reestablished at Fort Monroe, under very favorable auspices (as well as the cavalry and light artillery school at Fort Riley); but unfortunately, owing to the large proportion of our military force on foreign stations, it has not been practicable to locate a sufficient number of troops, batteries, and companies at Fort Riley and Fort Leavenworth to fully carry out the purposes for which the cavalry and light artillery school and the infantry and cavalry school have been created.

Marked progress has been made in locating heavy batteries for the defense of the Atlantic, Gulf, and Pacific coasts. In this great work approximately \$55,000,000 have already been expended, and it will require, to carry out the general plan now under consideration, at least \$45,000,000 more.

The following statement gives the estimates submitted by the Quartermaster-General, Chief of Engineers, and Chief of Ordnance for the fiscal year ending June 30, 1902, for fortifications, armament, construction of barracks and quarters, and purchase of lands on the coast of the following States:

Maine.....	\$1,285,925
New Hampshire.....	681,010
Massachusetts.....	901,534
Rhode Island.....	747,518
New York.....	2,724,485
Pennsylvania.....	150,000
Delaware.....	120,000
Maryland.....	159,000
Virginia.....	935,450
North Carolina.....	100,000
South Carolina.....	281,610
Georgia.....	100,000
Florida.....	464,440
Alabama.....	108,610
Louisiana.....	200,620
Oregon and Washington.....	1,106,602
California.....	1,417,796
District of Columbia.....	50,000
Porto Rico.....	332,400
Total.....	11,827,000

I recommend that the appropriations be made accordingly.

• Very great improvement has been made, under the direction of the Board of Ordnance and Fortification, in the development of an explosive invented by Dr. Tuttle, of Tacoma, Wash., which is believed to be superior in effectiveness to all known safe military explosives. It is perfectly safe to transport and handle, and can be used in any service projectile; can be thrown any distance within the capacity of any high-power gun through steel armor plate, and exploded with most destructive effect. Important action has also been taken by the same board in the matter of larger caliber high-power guns, and improvements have been developed in field and mountain artillery, sufficient success having been achieved to indicate that, within the next twelve months, greater advance will be made in seacoast and field artillery than has been accomplished during the last two decades. In fact, the history of recent wars has demonstrated the great advancement, as well as the destructive power of modern artillery, especially in rapid-fire and machine guns.

In future wars both branches of this arm of the service must play a more important part than ever before. The safety of the great harbors of the country, of the commercial ports, where is concentrated a great percentage of the population, as well as a large proportion of the wealth of the nation, depends upon the efficiency and the power of the coast defenses. They not only defend the wealth and treasures of the nation, but they protect the foundries, factories, workshops, savings banks, and the homes of the great masses of our laboring people. The service of modern artillery has now become an intricate science, requiring great study, skill, and efficiency on the part of the officers and of the enlisted men, and the pay of the latter should be increased in proportion to the skill and intelligence required for such service. I may say that those in this branch of the service have manifested great interest and efficiency in their profession.

Although we have not reached the serious consideration of small arms, yet sufficient has been demonstrated during the past few years in the development of automatic and semiautomatic weapons to make it apparent that a change of type and great improvements must be made in the near future. This subject will be brought to your attention during the coming year.

During the last few years great advance has been made in the application of steam and electric power to mobiles, automobiles, and locomobiles, or self-moving vehicles for the transportation of persons and material; and, while considerable progress has been made in utilizing this new military motor-power in European armies, there has been but little development along this line in our Army. In my opinion, it is perfectly practicable to employ this means of transportation in many ways for military purposes. In fact, I do not think it wise

to longer delay the practical application of such a well-known power; and I therefore recommend that a liberal appropriation or allotment be given for the purchase of the necessary appliances for use in the different military departments.

I renew my recommendation that authority be granted to the War Department to dispose of, by sale, certain reservations and military posts that have been, or may be, abandoned on account of being no longer of military value; and that the proceeds of such sales may be utilized in purchasing suitable lands that are imperatively required for the immediate use of the garrisons now at the artillery posts and at other points for the better equipment of the service. This plan has been recently adopted by the French Republic with great benefit to their service.

There is needed in the immediate vicinity of the National Capital suitable grounds for the encampment of regular troops whenever assembled and for State troops when occasionally required; and I call attention to the necessity for Congress to make the requisite appropriation for putting the ground near the capital, known as Potomac Flats, in suitable condition for such purpose and for such other purposes as may be required. Its condition now is most unsatisfactory, and is a menace to the health of the people living at the National Capital.

The events of the past two years and a half have resulted in a condition that the nation must prepare to meet. The need for an efficient and well-organized land force for an indefinite period in the future is most obvious, and the organization of such a force can not wisely be avoided. There are weighty reasons why such a service as is now demanded of the Army can not well be performed by temporary organizations. There is a marked distinction between permanent and temporary organizations. The officers and men of the latter do not sever their connection with their vocations, and a prolonged service makes a demand upon them which should not be required. The especial efficiency of temporary organizations is illustrated in the accomplishment of some specific end, usually requiring a comparatively short time to accomplish.

There is also a highly economic question involved, especially where, as now, the service must be performed on a very remote field. The temporary organizations now serving in the Philippine Islands, although their whole period of service will cover nearly two years, will yet have rendered but little more than one year of service in the field, and the expense of the double transfer adds enormously to the cost of the organization.

Besides these considerations, the need of an increased regular force is urgent, in order to afford a reserve for the relief of regiments that are serving at tropical and subtropical stations. The permanent

organization is principally so serving, and some regiments have been more than two years at unhealthy stations and should be relieved.

I have repeatedly advocated a principle, which seems to me to be safe and logical, by which to determine the strength of our regular military establishment. It is based on the population of the United States. Surely one skilled, trained soldier to every thousand of population can not be a menace to the established liberties and free institutions of this great Republic, and such a proportion would give the least force that is commensurate with the necessities, character, and magnitude of the nation. Our Army is a school in which patriotism constitutes the fundamental principle. The act of enlistment is a voluntary and sacred one. Every officer and soldier is a citizen who, of his own accord, chooses to bear arms for a period, either in defense of his country or to prolong peace by enabling the Government to be prepared for war. The highest type of a patriotic citizen is the citizen soldier who, when he enters the service, is prepared, if need be, to give his life for his country.

In supplying the necessary increase in a permanent military establishment, and in effecting its thorough reorganization, I would urgently recommend that appointments of officers be made with a due regard for the principle of seniority, and that each case be passed upon by a board of the highest officers of the Army, as was done in the reorganization following the civil war.

I will have the honor to submit a draft of a bill embodying my views and recommendations on army reorganization.

Very respectfully,

NELSON A. MILES,
Lieutenant-General.

The SECRETARY OF WAR.

ANNUAL REPORT
OF THE
ADJUTANT-GENERAL OF THE ARMY.

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, October 20, 1900.

SIR: The following returns of the Regular Army and of the United States Volunteers now in the service of the United States are respectfully submitted:

A.—General return, or exhibit, showing the actual strength of the Army according to the latest returns received.

B.—Distribution of the Army of the United States.

C.—Statement showing the monthly strength and losses from all causes in the Army of the United States between July 1, 1899, and June 30, 1900.

D.—Strength of the Army by divisions and departments between July 1, 1899, and June 30, 1900.

E.—Strength of the Regular Army of the United States June 30, 1899, and June 30, 1900, with losses from all causes between those dates.

F.—Strength of the volunteers of the United States June 30, 1900, with losses from all causes since July 1, 1899.

G.—Deaths in the Army of the United States between July 1, 1899, and June 30, 1900.

H.—Table showing dates of sailing and troops sent to the Philippine Islands.

I.—Casualties in actions of troops serving in China between July 1 and October 1, 1900.

K.—Chronological list of actions, with losses, in the Philippine Islands, between February 4, 1899, and June 30, 1900.

L.—List of retirements, resignations, deaths, etc., among officers of the Army since last annual report.

M.—Deaths in the Philippine Islands between February 4, 1899, and June 30, 1900.

N.—Statistical exhibit of strength of volunteer forces called into service during the war with Spain, with losses from all causes.

The military forces now in the service of the United States are composed as follows:

REGULAR ARMY.

	Officers.	Enlisted men.	Total.	Officers holding commissions in volunteers.
General officers.....	8	.....	8	1
Adjutant-General's Department.....	15	.....	15	2
Inspector-General's Department.....	9	.....	9	1
Judge-Advocate-General's Department.....	8	.....	8	1
Quartermaster's Department.....	58	105	163	19
Subsistence Department.....	22	173	195	3
Medical Department.....	180	a 4,360	4,540	25
Pay Department.....	26	.....	26	.....
Corps of Engineers.....	126	687	813	1
Ordnance Department.....	61	664	725	.....
Signal Corps.....	11	748	759	6
Chaplains.....	30	.....	30	.....
Record and Pension Office.....	2	.....	2	.....
Military Academy.....	.....	279	279	.....
Electrician sergeants.....	.....	42	42	.....
Total.....	556	7,058	7,614	59
Ten regiments of cavalry.....	472	12,083	12,555	67
Seven regiments of artillery.....	351	10,978	11,329	29
Twenty-five regiments of infantry.....	1,156	35,428	36,584	78
Indian scouts and recruits.....	.....	2,674	2,674	.....
Grand total.....	2,535	63,861	66,396	b 233

UNITED STATES VOLUNTEERS.

	Officers.	Enlisted men.	Total.	Officers holding commissions in Regular Army.
General officers and staff corps.....	263	.....	263	102
One regiment of cavalry.....	50	1,025	1,075	5
Squadron Philippine cavalry.....	15	451	466	3
Twenty-four regiments of infantry.....	1,189	28,724	29,913	118
Porto Rico regiment.....	31	879	910	5
Total.....	1,548	31,079	32,627	b 233

RECAPITULATION.

Regular Army.....	66,396
United States Volunteers.....	32,627
	99,023
	b 233
Grand total.....	98,790

a The Hospital Corps is not included in the effective strength of the Army, nor counted as a part of the enlisted force provided by law.

b The number of officers in the Regular Army holding volunteer commissions is deducted from aggregate strength to avoid counting twice.

The following statement gives the present distribution of the regular and United States Volunteer forces:

	United States.		Alaska.		Porto Rico.		Cuba.		Philippine Islands.		Hawaiian Islands.		China.	
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
REGULAR ARMY.														
General officers and staff corps.....	351	2,707	2	120	11	104	18	341	97	3,627	1	17	17	142
Cavalry.....	120	2,940	2	.....	13	359	139	3,492	119	4,892	.....	12	12	400
Artillery.....	227	6,663	1	.....	6	195	26	886	54	2,868	4	202	4	164
Infantry.....	224	3,914	32	968	31	869	39	749	717	27,574	.....	35	35	1,354
Indian scouts.....	.....	74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Recruits.....	.....	2,600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	922	18,898	37	1,088	61	1,527	222	5,468	987	38,961	5	219	68	2,060
UNITED STATES VOLUNTEERS.														
General officers and staff corps.....	73	.....	4	.....	6	.....	38	.....	131	.....	1	.....	10	.....
Cavalry.....	1	.....	.....	.....	.....	.....	.....	.....	64	1,476	.....	.....	.....	.....
Infantry.....	2	.....	.....	.....	31	879	.....	.....	1,185	28,724	.....	.....	2	.....
Total.....	76	.....	4	.....	37	879	38	.....	1,380	30,200	1	.....	12	.....
Grand total..	998	18,898	41	1,088	98	2,406	260	5,468	2,367	69,161	6	219	80	2,060

Deaths in the armies of the United States between July 1, 1899, and June 30, 1900.

	United States.		Alaska.		Cuba.		Porto Rico.		Hawaiian Islands.		Philippine Islands.		Atsea.		Total.	
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
Regular Army.....	12	219	.....	3	3	146	.....	28	1	3	26	762	2	66	44	1,227
United States Volunteers.....	2	45	.....	4	.....	.....	8	.....	1	23	631	1	18	30	.....	708
Total.....	14	264	.....	3	7	146	.....	36	1	4	49	1,393	3	84	74	1,930

The losses from all causes in the Regular Army, the State and the United States Volunteers from July 1, 1899, to June 30, 1900 (see Table "F"), were as follows:

	Re-signed.	Retired.	Dis-missed.	Dis-charged.	Died.	De-serted.	Miss-ing.	Total.
REGULAR ARMY.								
Officers.....	10	60	6	.....	44	.....	2	122
Enlisted men.....	.....	123	.....	16,391	1,227	2,863	.....	20,604
Total.....	10	183	6	16,391	1,271	2,863	2	20,726
STATE AND UNITED STATES VOLUNTEERS.								
Officers.....	230	.....	6	.....	30	.....	.....	266
Enlisted men.....	.....	.....	.....	6,201	703	1,130	.....	8,034
Total.....	230	.....	6	6,201	733	1,130	.....	8,800
Grand total.....	240	183	12	22,592	2,004	3,993	2	29,026

THE REGULAR ARMY.

Under the provisions of section 2 of the act approved March 2, 1899, for increasing the efficiency of the regular military establishment, the increase therein provided is to continue in service not later than July 1, 1901, and thereafter the enlisted force of the line of the Army is to be reduced to the number prescribed by prior laws, exclusive of the additions made to the artillery under this act. Unless, therefore, suitable provision is made by Congress to meet the existing emergencies of the military service, the enlisted strength of the Army will, at that date, be reduced to 29,025 men.

In pursuance of the plan, approved by the Secretary of War, of establishing depot battalions for the purpose of drill instruction and recruitment, the following battalions have been ordered home from the Philippine Islands to stations as follows:

April 1, 1900.—The first battalion of the Fourteenth Infantry (Companies A, B, C, and D—4 officers and 211 men) sailed on the *Sherman* and arrived at San Francisco on the 26th of that month, Company A taking post at Fort Brady, Mich., and the other three companies at Fort Wayne, Mich.

June 19, 1900.—The first battalion of the Eighteenth Infantry (Companies A, B, C, and D—20 officers and 293 men) sailed on the *Hancock*, arriving at San Francisco July 13. The first three companies were assigned to the Presidio, San Francisco, Cal., and Company D to Fort Mason, Cal.

July 1, 1900.—The third battalion of the Twenty-third Infantry (Companies I, K, L, and M—5 officers and 182 men) sailed on the *Warren* and arrived at San Francisco July 27, Companies I and L taking station at Fort Douglas, Utah, and Companies K and M at Fort D. A. Russell, Wyo.

THE VOLUNTEER ARMY.

Of the 200,000 men called into the military service under the act of Congress dated April 22, 1898, for the prosecution of the war then existing between the United States and Spain, all had been mustered out of service at the date of last report with the exception of the First Tennessee Infantry. That regiment, then en route for the United States, was mustered out at San Francisco November 23, 1899.

UNITED STATES VOLUNTEERS.

Of the additional military force of 35,000 men authorized by the act of March 2, 1899, the Eleventh Cavalry and the Twenty-sixth to the Thirty-second Infantry, inclusive, were in service in the Philippines at the date of the last report. The other organizations of that force arrived at Manila on the date set opposite each regiment, as follows:

Organization.	Date.	Organization.	Date.
Thirty-fourth Infantry	Oct. 11, 1899	Forty-sixth Infantry	Dec. 15, 1899
Thirtieth Infantry	Oct. 21, 1899	Forty-third and Forty-fourth In-	
Twenty-sixth Infantry	Oct. 24, 1899	fantry	Dec. 19, 1899
Twenty-seventh, Thirty-second,		Forty-seventh Infantry	Dec. 22, 1899
and Thirty-third Infantry	Oct. 27, 1899	Thirty-eighth and Fortieth In-	
Twenty-ninth Infantry	Nov. 2, 1899	fantry	Dec. 27, 1899
Thirty-fifth Infantry	Nov. 7, 1899	Forty-second Infantry	Dec. 31, 1899
Twenty-eighth Infantry	Nov. 23, 1899	Forty-ninth Infantry	Jan. 2, 1900
Thirty-first Infantry	Nov. 27, 1899	Forty-first Infantry	Jan. 5, 1900
Thirty-ninth and Forty-fifth In-		Forty-eighth Infantry	Jan. 25, 1900
fantry	Dec. 7, 1899		

In view of the briefness of the unexpired service of the volunteers it was thought proper to discharge those who had been invalided to San Francisco from time to time, rather than return them to duty in the Philippine Islands.

On September 6, 1900, there were 435 invalided volunteers in the Department of California—234 in general hospitals, 164 at the Presidio, San Francisco, and 37 at Fort Mason; 385 being reported as convalescent and able to travel were discharged.

To avoid confusion and guard against loss of records, instructions were given for careful preparation of descriptive lists of discharged men with notations relating to discharge, pay due, etc., to be listed by regiments and filed at department headquarters pending arrival of the regiments for discharge. All discharged volunteer soldiers able to travel with comfort and safety as to health were encouraged to go directly to their homes, and every assistance to this end was given them. Special terms were effected with the railroads, the rate to Chicago being made at \$43.75 from San Francisco, a reduction of nearly 17 per cent on the regular fare (the best that could be obtained), and arrangements were made whereby tickets would be sold to the men at the military posts.

To meet the many requests of officers and men of the United States Volunteers who desire to leave the military service to engage in business in the Philippines and cast their fortunes with those islands, the Secretary of War, on October 18, 1900, authorized the commanding general of the Division of the Philippines to accept their resignations or order their discharges.

MILITARY GEOGRAPHICAL DEPARTMENTS.

The present territorial limits of the military geographical departments are as follows:

Division of the Philippines.—The Philippine Islands.

Department of Alaska.—The Territory of Alaska.

Department of California.—The States of California and Nevada, and the Hawaiian Islands.

Department of the Colorado.—The States of Wyoming (except so much thereof as is embraced in the Yellowstone National Park), Colorado, and Utah, and the Territories of Arizona and New Mexico.

Department of the Columbia.—The States of Washington, Oregon, Idaho (except so much of the latter as is embraced in the Yellowstone National Park).

Department of Dakota.—The States of Minnesota, North Dakota, South Dakota, Montana, and so much of Wyoming and Idaho as is embraced in the Yellowstone National Park.

Department of the East.—The New England States, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, and Louisiana.

Department of the Lakes.—The States of Wisconsin, Michigan, Illinois, Indiana, Ohio, Kentucky, and Tennessee.

Department of Mindanao and Solo.—Includes all the islands of the Philippine Archipelago not embraced in the Departments of Northern Luzon, Southern Luzon, and of the Visayas.

Department of the Missouri.—The States of Iowa, Nebraska, Missouri, Kansas, and Arkansas, the Indian Territory, and the Territory of Oklahoma.

Department of Northern Luzon.—Includes all that part of the island of Luzon north of Laguna de Bay and the province of Laguna, the same being the provinces of Abra, Bontoc, Benguet, Bataan, Bulacan, Cagayan, Ilocos, Infanta, Morong, Norte, Ilocos Sur, La Isabela de Luzon, Lepanto, La Union, Nueva Vizcaya, Nueva Ecija; all that portion of Manila north of the Pasig River, Principe, Pangasinan, Pampanga, Tarlac, and Zambales, and all the islands in the Philippine Archipelago north of Manila Bay and the provinces above named.

Department of Porto Rico.—The island of Porto Rico and the islands and keys adjacent thereto.

Department of Southern Luzon.—Includes island of Samar and all the remaining part of the island of Luzon, the same including the following provinces: Albay, Batangas, Camarines Norte, Camarines Sur, Cavite, La Laguna, Manila south of the Pasig, and Tayabas, and all islands of the Philippine archipelago which lie south of the south line of the Department of Northern Luzon, as above described, including the island of Polillo, and north of a line passing southeastwardly through West Pass of Apo to the twelfth parallel of north latitude; thence easterly along said parallel to $124^{\circ} 10'$ east of Greenwich, but including the entire island of Masbate; thence northerly through San Bernardino Straits.

Department of Texas.—The State of Texas.

Department of the Visayas.—Includes all islands (except island of Samar) south of the southern line of the Department of Southern Luzon and east of longitude $121^{\circ} 45'$ east of Greenwich and north of the ninth parallel of latitude, excepting the island of Mindanao and all islands east of the Straits of Surigao; headquarters, Iloilo, P. I.

The strength of the above-named divisions and departments was as follows June 30, 1900:

	Officers.	Enlisted men.	Total.
Division of—			
Cuba	435	9,421	9,856
The Philippines.....	2,348	61,083	63,431
Department of—			
Alaska	33	1,002	1,035
California	67	1,364	1,431
The Colorado.....	70	1,844	1,914
The Columbia.....	33	984	1,017
Dakota	51	1,120	1,171
The East	264	7,728	7,992
The Lakes	58	1,408	1,466
The Missouri	80	2,392	2,472
Porto Rico.....	132	3,204	3,336
Texas	31	1,169	1,200
Total	3,597	92,719	96,316

CUBA.

Division of Cuba.—Consists of the geographical departments and provinces of the island of Cuba.

Department of Eastern Cuba.—The provinces of Santiago and Puerto Principe.

Department of Western Cuba.—The provinces of Habana, Pinar del Rio, Matanzas, and Santa Clara.

The following is a summary of the movements of troops from and to the island of Cuba:

FROM CUBA.

September 13, 1899.—Companies A, B, C, and D, First Infantry, for Fort Leavenworth, Kans.; headquarters and Companies I, K, L, and M, Eighth Infantry, for Fort Snelling, Minn.

September 17, 1899.—Companies E, F, G, and H, Second Infantry, for Fort Thomas, Ky.

September 20, 1899.—Companies I, K, L, and M, Tenth Infantry, for Fort Crook, Nebr. (Home battalion.)

September 23, 1899.—Companies I, K, L, and M, Fifth Infantry, for Fort Sheridan, Ill.

October 15, 1899.—Batteries B, C, D, and E, Second Artillery, for Fort McPherson, Ga. (Home battalion.)

October 16, 1899.—Companies E, F, G, and H, Fifteenth Infantry, for Madison Barracks, N. Y. (Home battalion.)

January 5, 1900.—Headquarters and Companies A, B, C, D, I, K, L, and M, Fifteenth Infantry; headquarters and Companies A, C, and D, for Plattsburg Barracks, N. Y.; Company B, for Fort Ethan Allen, Vt.; and Companies I, K, L, and M, for Fort Columbus, New York Harbor.

January 19, 1900.—Troops A, B, C, and D, Eighth Cavalry, for Fort Riley, Kans. (Home battalion.)

July 16, 1900.—Companies E and F, Eighth Infantry, for Fort Snelling, Minn.

July 19, 1900.—Headquarters and Companies I, K, L, and M, Second Infantry, for Fort Thomas, Ky.; headquarters and Companies A, B, C, D, G, and H, Eighth Infantry, for Fort Snelling, Minn. (Home battalion.)

July 20, 1900.—Headquarters and Companies A, C, F, and G, Fifth Infantry, for Fort Sheridan, Ill. (Home battalion.)

August 1, 1900.—Companies B, D, E, and H, Fifth Infantry, for Fort Sheridan, Ill. (Home battalion.)

August 4, 1900.—Companies K, L, and M, First Infantry, for Fort Leavenworth, Kans. (Home battalion.)

August 9, 1900.—Headquarters and Companies E, F, G, and H, First Infantry, for Fort Leavenworth, Kans.; Light Battery F, Second Artillery, for Washington Barracks, D. C.

September 2, 1900. Company I, First Infantry, for Fort Leavenworth, Kans. (Home battalion.)

The above movements have withdrawn from the troops in the island of Cuba four troops of cavalry, three batteries of artillery, and the equivalent of five regiments of infantry.

PORTO RICO.

August 4, 1900.—Headquarters and Troops K and L, Fifth Cavalry, left Porto Rico to take post at Fort Myer, Va.

August 7, 1900.—Troops I and M, Fifth Cavalry, for Fort Myer, Va.

August 8, 1900.—Companies A, B, C, and D, Eleventh Infantry, for Fort Columbus, New York Harbor. (Home battalion.)

On the 30th of April, 1900, Brig. Gen. George W. Davis, U. S. Volunteers, commanding the Department of Porto Rico, upon the recommendation of the governor elect, established six civil executive departments, to facilitate the transfer of the civil duties of the military government of the island.

Hon. Charles H. Allen, having been inaugurated as governor of Porto Rico on May 1, 1900, General Davis, on the same day, formally announced the transfer, to the duly appointed civil officers of the Government of Porto Rico, of the military control over civil affairs which had heretofore been exercised by the department commander.

CHINA.

The perilous situation of the members of the American legation at Peking and their complete isolation in the midst of an unruly and murderous populace last spring demanded prompt action for their relief. The Commanding General, Division of the Philippines, was therefore instructed by cable, June 16, to send at once a regiment of infantry to Taku, and, six days later, Maj. Gen. Adna R. Chaffee, U. S. Volunteers, was selected to command the United States troops to compose the China relief expedition.

The following is a summary of events in China subsequent to the firing by the Taku forts on foreign war vessels which resulted in the surrender of the forts June 17, and to the capture of the east arsenal at Tientsin by the allied forces on the 27th of the same month:

July 3.—Headquarters and eight troops of the Sixth Cavalry sailed from San Francisco on the *Grant* for China.

July 6.—Ninth Infantry landed at Taku.

July 11.—Two battalions Ninth Infantry reached Tientsin.

July 13.—Severe engagement at Tientsin between the allied forces and the Chinese. The Ninth Infantry suffered heavily, losing Colonel Liscum and 17 men killed and 5 officers and 72 men wounded.

July 14.—Tientsin captured by the allies; Third Battalion, Ninth Infantry, reached that place.

July 15.—Light Battery F, Fifth Artillery, and two battalions Fourteenth Infantry sailed from Manila for China.

July 17.—Headquarters and four companies Fifteenth Infantry sailed from San Francisco on the *Sumner* for China.

July 26.—Two battalions Fourteenth Infantry, on the *Indiana*, arrived at Taku.

July 27.—Light battery F, Fifth Artillery, on the *Flintshire*, arrived at Taku.

July 28.—General Chaffee, with headquarters and eight troops Sixth Cavalry, arrived at Taku.

July 29.—Four batteries Third Artillery sailed from San Francisco on the *Hancock* for China.

August 5.—Pietsang captured by the allied forces. No casualties to the United States troops.

August 6.—Light Battery F, Fifth Artillery, Ninth and Fourteenth Infantry, participated in battle of Yangtsung, sustaining a loss of 7 men killed and 1 officer and 62 men wounded.

August 9.—Japanese, British, Russian, and American troops advanced to Ho-si-wu, the Chinese flying after firing first shots.

August 14.—Pekin entered at 5 p. m. by the allied forces.

August 14-15.—Capture of Pekin by the allied forces, in which Light Battery F, Fifth Artillery, and the Ninth and Fourteenth Infantry sustained a loss of Capt. Henry J. Reilly and 5 men killed and 30 men wounded.

August 16.—Brig. Gen. Thomas H. Barry, U. S. Volunteers, and four companies Fifteenth Infantry arrived at Taku.

August 19.—Action near Tientsin, in which Sixth Cavalry had 6 men wounded.

August 21.—Four batteries Third Artillery, on the *Hancock*, arrived at Taku.

August 28.—The allied forces formally entered the palace grounds at Pekin.

The relief of the American legation, following the capture of the Chinese capital, transferred to the domain of diplomacy the settlement of the proper redress for the outrages to the representatives of the American Republic and to its citizens residing in that country. It was therefore determined to withdraw the United States troops, leaving only a legation guard, to consist of four troops of cavalry, one light battery, and one regiment of infantry, under command of Major General Chaffee, U. S. V., he being instructed to send the remainder of his force to Manila.

The casualties in the several actions in China between July 1 and October 1, 1900, were as follows:

Organization.	Killed.		Wounded.		Total.		Aggregate.
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	
Hospital Corps				1		1	1
Sixth United States Cavalry				6		6	6
Fifth United States Artillery	1			3	1	3	4
Ninth United States Infantry	1	19	7	81	8	100	108
Fourteenth United States Infantry		11		79		90	90
Total	2	30	7	170	9	200	209

THE MILITARY ACADEMY.

The Military Academy at West Point is in a most satisfactory condition. The provision which Congress made at its last session for an increase of 100 cadets filled a need long felt by the service, and will result in great benefit both to the Army and to the country at large.

The wear and tear of time has told on many of the buildings, and much money has been spent from time to time in repair of buildings that would have been better spent in the erection of new ones. This question has been fully considered by a board of officers convened for this special purpose, the report of which is so thorough and satisfactory that it is submitted in its entirety and your favorable consideration requested. The Superintendent of the Academy will be instructed to submit special estimates based on the report of this board. In this connection the report of the Board of Visitors to the Academy for this year, in which the needs and requirements of the institution have received thorough investigation, is of unusual interest and is commended to your careful attention.

UNITED STATES MILITARY ACADEMY,
West Point, N. Y., September 25, 1900.

The board of officers appointed to consider and report upon the capacity of the present plant of the United States Military Academy, has the honor to report as follows:

An adequate presentation of this subject requires that it should be considered under two general heads: (1) The character and condition of the existing plant; (2) the nature of the present and future conditions it is called upon to sustain.

A summary of the structures constituting the Military Academy and post of West Point is given in the table below.

Barracks (1 cadet, 1 band, 1 engineer, 1 army service, 1 cavalry, 1 artillery)	6
Academic building	1
Headquarters building	1
Mess hall	1
Gymnasium	1
Chapel	1
Library	1
Hospitals (1 cadet, 1 enlisted men)	2
Store (cadet quartermaster)	1
Riding hall	1
Memorial hall	1
Ordnance laboratory	4
Observatory	1
Hotel	1
Quartermaster's carpenter and blacksmith shops	1
Quartermaster's storehouse	1
Equipment shed and commissary storehouse	1
Post exchange	1
Gas houses	2
Gas tanks	3
Government stables	2
Livery stable	1
Bakery	1
Filter houses	2
Water house	1
Officers' quarters (sets for married officers, 41; sets for bachelor officers, 16)	57
Detached enlisted men (single sets, 6; double sets, 25; quadruple sets, 5)	36
Employees and master of sword (single sets, 3; double sets, 2; triple sets, 1, including master of sword, Kinsley House, 1)	7
Band leader	1
Guardhouses (south gate, general, cadet)	3
Bath houses (cadet, soldier)	2
Boiler house (for heating buildings near cadet area)	1
Cold-storage (one at present used for storehouse and temporary stable)	3
Waiters' quarters (at Mess Hall)	1
Laundries (cadet and hotel)	2
Magazine	1
Children's schoolhouses	2
Store	1
Boathouses and pontoon house	4
Firing house, magazine, two shot houses (at water battery)	4
Wooden structures for miscellaneous purposes	26

Exclusive of outbuildings, reservoirs, and batteries, the Military Academy and post of West Point consists of 163 structures.

The aggregate of the appropriations for the buildings which have housed the Academy during the first century of its existence is about \$2,700,000. These structures have been erected by the authority of Congress at irregular intervals from the founding of the Academy in 1802 to the present day, to meet the immediate requirements of the institution as it gradually grew with the development of the country. At the beginning of the second century of its existence we find that only two of the buildings erected for the use of the cadets are of sufficient size to accommodate the corps as enlarged by the recent act of Congress. A brief analysis of the principal buildings will show the limitations of each and the enlargements which are absolutely essential.

THE CADET BARRACKS.

The cadet barracks, which replaced the old brick barracks of 1815 and 1817, was erected in 1851, to meet the growth of the Corps of Cadets; an addition was made to it in 1882. It is a four-storied granite building of imposing appearance, costing about \$186,000. As it now stands the barracks has 180 rooms, each designed for two cadets. In addition to the above it has quarters for 4 bachelor officers. As the Corps of Cadets now numbers 429, it necessitates the placing of three cadets in each of 69 rooms. Even were quarters constructed elsewhere for the above 4 officers, the barracks would have but 192 available rooms, of accommodation for 384 cadets. The number of cadets present being 429, and the maximum number authorized by law being 481, it will be seen that an increase in barrack accommodations is absolutely essential.

The system of heating is direct radiation from a central plant by steam coils of various patterns of obsolete type. This style of heating without artificial ventilation is most pernicious and requires thorough renovation.

The basement is now a damp, unwholesome space, divided into waste rooms used for rubbish and storage. The bathrooms and sinks are combined in a separate building erected of late years in the area. This plan is inconvenient and objectionable. Those who may be sick or partially invalided are compelled, in inclement weather, to go through snow and rain to reach them. Modern sanitary plumbing renders it perfectly safe to place the sinks and baths in the basement of barracks, a change which would render available for other purposes the space in the area of barracks now occupied by these buildings.

THE ACADEMY BUILDING.

This is a granite building constructed in 1892 at a cost of \$480,000, which houses all the departments of academic instruction. It will accommodate 500 students, and therefore requires no enlargement under existing circumstances.

THE CADET HOSPITAL.

The hospital is a granite building, constructed in 1874-1880, but never completed; only two of its four wards have been constructed. As at present constituted the regular wards will accommodate 18 patients, and an inadequately equipped convalescent ward can be made to hold 12 more, making a total of 30. The hospital accommodations are manifestly inadequate, and the building should be completed so as to provide for 50 patients. In addition to the hospital, there should be a separate and entirely new building for infectious diseases; there is at present no provision for such cases.

THE RIDING HALL.

The present riding hall, erected in 1855, is a granite structure with wooden trussed roof, 218 by 78 feet.

For instruction in riding the classes are necessarily divided into sections. The third class is divided into four and the first and second classes each into two sections. To enable the instruction given in the hall to be thorough and to progress with effective rapidity, it is found that the size of a section should not exceed 24 cadets; 32, however, can be accommodated by making the exercises slower, and with a corresponding loss in the extent of instruction. With the increased strength of the Corps of Cadets, as recently authorized, it is probable that after the present year the maximum strength of a section of the first and second classes will vary between 50 and 60 cadets. The capacity of the riding hall should therefore be doubled.

The hall is now badly heated and lighted. The lack of proper heating causes the tan bark to freeze and cake in winter, and the defective lighting interferes with the instruction.

THE MESS HALL.

The mess hall, a granite building erected in 1850, will seat 340 cadets, but has a cooking capacity for 300 only; its plan, however, admits of indefinite extension. There are accommodations for a force of cooks and attendants for 340 cadets. Seating accommodations for 89, and cooking arrangements for 129 cadets are lacking under existing conditions, and also provision for the necessary increase in cooks and attendants. The mess hall and kitchens should be so enlarged to accommodate at least the maximum number of cadets now authorized by law (481).

THE CHAPEL.

The chapel is a granite building erected in 1836 with a seating capacity of 428, just sufficient to accommodate the present number of cadets. As there are also present for duty 73 officers and instructors of the institution, together with members of families and friends, besides a considerable number of civilian employees, the chapel accommodations are much too small. If there be added to this the fluctuating and sometimes very large body of general visitors, it will be seen that provision should be made for a congregation of not less than 800.

THE LIBRARY.

The library, a granite structure, is now being remodeled; when completed it will be adequate for the present and future needs of the institution.

THE GYMNASIUM.

This building, a granite structure, was erected in 1891, and has a floor area in the gymnasium proper of 6,300 feet. It will not properly accommodate for purposes of instruction sections of over 40 men at one time. The fourth class is necessarily divided into three sections, each of which at present contains 60 men. The floor area should therefore be increased one-half. In addition to this provision is needed for increased machinery, storage, dressing rooms, enlargement of swimming tank, and the various other accessories of the gymnasium.

THE OBSERVATORY.

The observatory is a granite structure erected in 1882. Its accommodations are ample for the present needs of the institution.

THE CADET LAUNDRY.

The present plant can properly do the work for 250 cadets during the summer, running ten hours per day, and for 400 cadets in the winter, running eight hours per day. Provision should be made for at least 375 cadets during the summer and 481 during the winter. It is desirable also that during the heated spell the hours of work should not be excessive and that the plant should do all the work easily under normal conditions.

THE CADET STORE.

The present building has a capacity for properly supplying 300 cadets. It should be able to supply the authorized maximum of 481.

THE CADET GUARDHOUSE.

This is an antiquated brick building containing 11 small rooms, which are used for the following purposes: Offices for the commandant of cadets and his 8 assistants, 3 clerks, and cadet officer of the day; a guardroom, engine room, and tool room. Provision should be made for 9 officers, 3 clerks, room for the guard, room for orderly musicians, and for 6 armories, and 1 storeroom.

THE ADMINISTRATION BUILDING.

This is a granite building erected in 1871. It contains the offices of the Superintendent, the adjutant, and the quartermaster, and is the depository of most of the records of the post. Many of the rooms in this building are overcrowded and an increase in floor space is very desirable.

THE SUMMER ENCAMPMENT.

The present summer encampment has a capacity of 140 tents, accommodating 280 cadets. To accommodate properly the maximum number of cadets likely to be in camp, under the present authorized maximum strength (481) of the corps of cadets, 46 additional tents will be required. This will provide a tent for every 2 cadets, the maximum number which can be put in a tent without crowding and discomfort.

The additional ground required for the encampment can be obtained by razing the parapet and filling in the ditch of Fort Clinton, and by removing and transplanting a number of trees north of the present camp.

THE OFFICERS' QUARTERS.

The buildings occupied by the officers of the Military Academy as quarters are of every variety of type, construction, and material, and of all ages—from the earliest days of the Academy to the present date. The most substantial are those occupied by the Superintendent and heads of departments; some of these are of stone and the rest of brick. They are all old structures, some of them dating from 1816. The remaining houses are of brick or wood and have been variously altered and added to. Upon the older buildings very much money has been expended in repairs, and as the appropriations for repairs cover the entire plant of the institution it is impossible to make thorough renovations. As a consequence repairing by driblets goes on from year to year at a very large aggregate cost and with only temporary results.

None of the older sets of quarters are up to the standard of modern domestic architecture either in plan or conveniences, and as a rule are very far below the standard adopted in the quarters recently erected by the Government at army posts.

For bachelor officers convenience and economy are best subserved by arrangement in suites in a single building. There are now 23 bachelor officers assigned to the Academy; for their accommodation there is but one such set of bachelor quarters, designed for 8 officers. The other bachelor officers occupy rooms in the cadet barracks and in the quarters of married officers. With less active military operations than at present the proportion of bachelor officers will tend to increase and a building providing for about 20 suites should be erected on a convenient site adjacent to the mess building.

There are at present available 41 sets of married officers' quarters, many of which are small, inadequate, and without modern conveniences, and others of the grade of cheap tenements and entirely unfit for occupancy. As there are 50 married officers on duty here, there is a balance of 9 unprovided for. Temporary arrangements entailing great inconvenience and risk to health have been effected to meet the present embarrassments. Nine sets of new quarters are required to properly provide for immediate needs, aside from all questions of removal and replacement of old sets. The quartermaster reports that at least 7 of the old sets should be immediately removed and replaced by new ones, and in this the board concurs.

THE BARRACKS FOR CAVALRY DETACHMENT.

The present brick building will accommodate 95 men, which is sufficient for all present needs, but its location is such that it will interfere with any enlargement of the riding hall, and should be moved to another site.

THE STABLES FOR CAVALRY HORSES.

The present brick stables provide stalls for 116 horses. The number of horses required is determined by the size of the first and second classes. All of the first class and half of the second class are required to attend squadron drill together. This will demand at least 160 horses in the near future. Stabling, therefore, for at least 44 additional horses must be erected. These stables also interfere with the enlargement of the riding hall, and should be moved to another site.

THE ENGINEER BARRACKS.

This brick building was completed in 1858; it has a capacity of 50 men—the strength of the company when it was erected. The authorized strength of an engineer company is now 150. The necessity for an enlargement is apparent.

THE BARRACKS FOR ARTILLERY DETACHMENT.

In 1900 Congress authorized the organization of an artillery detachment of 40 men. A brick building formerly used as a barracks for the quartermaster's detachment, and subsequently for other purposes, is available for temporary use; it requires renovation.

Stables suitable for the horses of this detachment can be provided temporarily by utilizing a stone building now used as a mule stable, together with the present livery stable; both require renovation. As these are temporary and inconvenient expedients, both as regards location and character of building, new barracks and stables on a suitable site should be provided.

THE BAND BARRACKS.

The band barracks is a brick structure which has accommodations for 25 men. The legal strength of this organization being now 40 men, increased barrack accommodation is necessary. Suitable barrack accommodation is also needed for the squad of drummers and orderlies, whose authorized strength is 24 men.

THE ARMY-SERVICE BARRACKS.

The army-service detachment occupies a brick building which has barrack accommodation for 80 men. The authorized strength of this detachment is now 125 men.

THE COMMISSARY BUILDING.

The old equipment shed, now in part used as a commissary building, is remote, inconvenient, and unsuited to the purpose. For administration purposes it would be desirable to house the commissary, meat contractor, and post exchange in a single building constructed for the purpose.

THE QUARTERMASTER'S SHOPS.

The care and repair of the existing plant and the erection of many minor constructions fall upon the quartermaster of the Academy. This is already a large and responsible work, demanding experience and ability in the officer having it in charge. It is not only economical but necessary to the Government that this class of work be done in its own shops, and the necessity for a competent plant is imperative. The present enlargement of the Academy increases this work, and a corresponding increase in the plant is demanded. This would include an extension to the carpenter, saddler, blacksmith, plumber, and tinsmith shops, as well as an extension to the lime sheds and storehouse, whose capacity is already inadequate. It should be borne in mind that this post is a small town, the policing and current repairs of which are done by the members of an army-service detachment, which is comprised of laborers and mechanics of all trades.

THE WEST POINT HOTEL.

The hotel was erected in 1829 and has been added to from time to time. It is composed of a main building of stone, stuccoed, a brick wing, also stuccoed, and various wooden additions. The present structure is deficient in accommodations, obsolete in appointments, and defective in plan. In order that the hotel may fulfill the object for which it was designed, it requires a material increase in size and complete remodeling.

THE STABLE.

The old stable is in very bad repair and unfit for its uses, besides occupying a position which is unsightly and inconvenient. The group of buildings of which it is a part, together with the old gas works, should be removed to a more suitable site.

THE WATER SUPPLY.

The recently constructed Lusk reservoir, designed to relieve the needs of conditions then existent, is inadequate to meet any additional demand, and the rapid increase of consumption recently brought about gives the question a very serious aspect. Any considerable diminution in rainfall, such as characterizes a moderate drought, would produce a water famine.

It is a matter of vital importance that the only available source of supply in this vicinity—i. e., Long Pond—should be immediately purchased before further increase in the price of land and before vested rights in it as a source of supply shall have been acquired by others. In the latter case its acquirement might be impossible, and the future needs of the institution as regards water supply would present insuperable difficulties.

STEAM HEATING AND LIGHT.

The existing arrangements for heating public buildings are inadequate and unsystematic. This results naturally from the spasmodic nature of their growth and extension, one building after another having been attached to a plant originally small and located with reference to a special building.

Steam heating was first applied to cadet barracks and thence extended to include adjacent buildings. As a consequence the original plant, grown unwieldy, is objectionably located in the area of the barracks. The pipes and connections are for a large part confused and improperly laid, and the system does not include several of the public buildings, which therefore require separate plants. It would result in a great economy to the Government to have all buildings heated from a central plant, as has been done in the large posts recently built. The present method of lighting is equally objectionable and wasteful. It involves the operation and maintenance of two systems—gas and electricity—neither of which is effectively and economically organized. The gas plant is obtrusively located in a very conspicuous position, offensive both to sight and smell. The connections of both systems are confused and conflicting and the result of the same spasmodic growth as in the case of the steam-heating plant.

A central plant which shall include both heating and light, inconspicuously located, is the only proper solution of a condition which is wasteful and ineffective.

THE SEWERAGE.

The sewer system is divided into three general drainage areas. The main sewer of the first starts from the assembly of buildings about the soldiers' hospital, follows the main road to the neighborhood of the engineer barracks, passes down the slope through the buildings associated with it, and on to the made ground of the West Shore Railroad, and thence to the river near the tunnel. The main sewer of the second area takes in the row of professors' quarters facing the river and as far as the second set south of the Superintendent's quarters, passing in rear of the first and in front of the parade group down the road to the north dock and thence to the river at a point some 200 yards to the east thereof. The main sewer of the third begins at the termination of the second in rear of officers' quarters, passes in front of the barracks and down the Highland Falls road as far as the old south gate. Its outlet passes by the riding hall and empties onto the tidal flats below the cavalry stables. This last outlet is in every way highly objectionable and dangerous to health. These mud flats are becoming each year more exposed at low tide, and already the effluvia from exposed sewage are at times very perceptible and offensive.

CONCLUSION.

The foregoing statement makes it apparent that the existing plant of the Military Academy is wholly inadequate to its present needs. Past experience makes it highly expedient that any modifications of, or additions to, the existing plant should be undertaken upon broad and carefully considered lines, and with a view to a homogeneous development under the best conditions. The old method of temporary makeshifts and inadequate construction is not only destructive to the dignity and beauty of the institution as an architectural whole, but wasteful and extravagant in the long run. It is therefore suggested that this matter be laid before the proper authorities with the recommendation that a comprehensive plan of enlargement, to be determined by competent architects in cooperation with the authorities of the Military Academy, be carried out, the plan to be one that will not only provide for present needs, but also admit of future extension.

P. S. MICHIE, <i>Professor of Natural and Experimental Philosophy.</i>	A. L. MILLS, <i>Colonel, U. S. Army, Superintendent.</i>
S. E. TILLMAN, <i>Professor of Chemistry, etc.</i>	CHS. W. LARNED, <i>Professor of Drawing.</i>
GEO. B. DAVIS, <i>Lieutenant-Colonel, Deputy Judge-Advocate-Gen'l, U. S. A., Professor of Law.</i>	E. E. WOOD, <i>Professor of Modern Languages.</i>
O. L. HEIN, <i>Lieut. Col., Commandant of Cadets.</i>	G. J. FIEBEGER, <i>Professor of Civil and Military Engineering.</i>
F. E. HOBBS, <i>Captain of Ordnance, Instructor of Ordnance and Gunnery.</i>	WRIGHT P. EDGERTON, <i>Professor of Mathematics.</i>
J. B. BELLINGER, <i>Major and Quartermaster, U. S. V., Quartermaster.</i>	JOSEPH E. KUHN, <i>Captain of Engineers, Instructor Practical Military Engineering.</i>
	W. C. RIVERS, <i>First Lieutenant, First Cavalry, Adjutant, U. S. Military Academy, Recorder.</i>

Special attention is also invited to the report of the Superintendent of the Military Academy relative to the hotel at West Point. The present building is old, entirely inadequate and unfit in its appointments for its purpose.

If authority be given to lease the present site on reasonable terms it is not doubted that private enterprise would provide a hotel supplied with all modern conveniences, and affording ample accommodations for all the purposes of its establishment at the Military Academy.

THE MILITARY INFORMATION DIVISION.

All the military technical publications, dispatches, reports, etc., received from abroad have been noted, carded, and properly classified.

Many communications addressed to the War Department or its Bureaus, and written in a foreign language, have been translated.

The French-English Military Technical Dictionary, by Lieut. Cornelis De W. Willcox, United States Artillery, has been completed in three parts and issued.

Under instructions from the War Department, Capt. Stephen L'H. Slocum, Eighth Cavalry, military attaché at Lisbon, Portugal, was detailed to accompany the British forces in South Africa, and Capt. Carl Reichmann, Seventeenth Infantry, to accompany the Boer forces during the military operations in the Transvaal. Both of these officers have made a number of reports, which are interesting and valuable. Captain Slocum returned to his station and has since been transferred to St. Petersburg, while Captain Reichmann is under orders to return to the United States.

Since the last annual report the Military Information Division has prepared and issued the following-described publications:

- No. 24. "A French-English Military Technical Dictionary," part 2, 1900. Part 3, 1900.
- No. 25. "Reports of Explorations in the Territory of Alaska," 1899.
- No. 26. "The Autumn Maneuvers of 1898," 1899.
- No. 27. "The Autumn Maneuvers of 1899," 1900.
- No. 28. "Report on the Island of Guam," by Brig. Gen. Joseph Wheeler, U. S. A., 1900.
- No. 29. "The Organized Militia of the United States in 1898," 1900.
- No. 30. "Notes on China," 1900.

In the map section the following work has been accomplished:

- Map of the seat of war in Africa, one sheet, three editions.
- Map of the Visayan Group, Philippine Islands, one sheet.
- Second edition of Carta General del Archipelago Filipino, republished from Spanish chart, two sheets.
- Copious editions and corrections to second edition of military map of the Isle of Luzon, two sheets.
- Map of Northeastern China, one sheet; two editions.
- Map of the Pei-Ho, China, one sheet.

During the year the map files of the division have been increased by the addition of 840 maps, including both foreign and domestic.

Many maps and charts have been mounted by the draftsmen for the use of officers of the Army, and numerous minor sketches, illustrations, drawings, etc., required by them and in the publications issued by the division, have been prepared in this section.

Much work has also been done in the preparation of maps, etc., to accompany annual reports.

The entire work of this division has been very useful and highly satisfactory. All connected with this important work are deserving of special credit.

MILITARY ATTACHÉS.

The following is a list of the military attachés at the several embassies and legations abroad:

EMBASSIES.

London: Maj. Edward B. Cassatt, Twenty-seventh Infantry, United States Volunteers (first lieutenant, Fourth Cavalry).
 Paris: First Lieut. T. Bentley Mott, Seventh Artillery.
 Berlin: Maj. John B. Kerr, Tenth Cavalry.
 St. Petersburg: Capt. Stephen L'H. Slocum, Eighth Cavalry.
 City of Mexico: First Lieut. Powell Clayton, jr., Fifth Cavalry.

LEGATIONS.

Berne: Capt. George R. Cecil, Thirteenth Infantry.
 The Hague: Lieut. Col. James N. Wheelan, Seventh Cavalry.
 Copenhagen and Stockholm: Lieut. Col. W. R. Livermore, Corps of Engineers.
 Brussels: Lieut. Col. James N. Wheelan, Seventh Cavalry, temporary.

Attention is again invited to the disadvantages under which our military attachés labor. In South Africa the military attachés of other nations had liberal allowances, but in the case of our attachés they had none, other than their pay and mileage, while their expenses were heavy.

It is very desirable to have military attachés at all European capitals, but the expenses incident to duty of this peculiar and delicate nature, over and above the cost of domestic establishment, are so very great that unless an officer has a private income outside of his pay he can not afford to take such a position. Under present conditions, therefore, the choice of military attachés must be restricted to the few officers who have incomes in addition to their pay, and are willing to spend their private means in the performance of this public duty.

DETAIL OF OFFICERS.

The details of officers for necessary service calling them away from their regular duties have made a heavy but unavoidable draft on the effective strength of the several corps and line of the Army, and this drain has been made still heavier during the past two years by the detachment of officers to command volunteers.

The number of officers of the Regular Army absent on recruiting service, etc., holding commissions in the United States volunteers and performing necessary civil functions, etc., in the Philippines and Cuba, is as follows:

	Detached duty.	Holding commissions in volunteers.	Total.
Staff corps.....	6	59	65
Cavalry.....	71	67	138
Artillery.....	52	29	81
Infantry.....	107	78	185
Total.....	236	233	469

APPOINTMENTS IN THE ADJUTANT-GENERAL'S AND INSPECTOR-GENERAL'S DEPARTMENTS.

The sixth section of the act of March 2, 1899, for increasing the efficiency of the Army, is as follows:

SEC. 6. That the Adjutant-General's and Inspector-General's departments shall consist of the number of officers now in those departments, respectively: *Provided*, That vacancies in the grade of major occurring in either department shall hereafter be filled from captains in the line of the Army: *And provided further*, That all such captains who have evinced marked aptitude in the command of troops shall be reported by their regimental commanders to the War Department, and shall be entitled to compete for any such vacancy under such system of examination as the President shall prescribe.

The following are the regulations established by the President under the law above cited:

I. Applicants.—Captains of the line "who have evinced marked aptitude in the command of troops" will be reported to the Adjutant-General of the Army by their respective regimental commanders.

In order that the manifest intention of the law may be carried out, captains who may have been detached from their regiments, and who may have evinced marked aptitude in the command of troops when not under the observation of their regimental commanders, will, in like manner, be reported to the Adjutant-General by their respective commanding officers. All captains so reported, and who desire to enter the competitive examination, will make application to the Adjutant-General of the Army, through military channels, for orders to appear for examination, and will forward at the same time such letters or recommendations from their military superiors as they may desire to submit.

II. Reports of commanders.—The first report of regimental commanders or commanding officers will be forwarded at once, and thereafter they will be forwarded on the 31st day of December of each year. The reports should show in detail the facts upon which they are based, what opportunities the officers reported have had, and what commands they have exercised; also the management of their companies, by the captains reported, in respect to discipline, sanitation, and the care of men.

III. Examinations.—The examination will be dual: First, by divisional or departmental boards, and, secondly, by a central board at Washington. The primary board will conduct the physical examination of the applicants and a written examination on questions prepared by the central board. The central board will examine the papers submitted, together with the records of the applicants, and mark them, giving each subject its relative weight, as follows:

Subject.	Relative weights.
Military and personal record, and aptitude for staff service.....	12
Drill regulations, all arms.....	3
Minor tactics.....	3
Topography.....	1
Law (constitutional, international, and military, and law of evidence).....	2
Hygiene of posts and camps.....	2
Functions of the Adjutant-General's and Inspector-General's departments, correspondence, staff administration.....	3
Money and property accountability.....	1
Hippology.....	1
Logistics.....	2

IV. Boards.—A central board, composed of an officer each of the Adjutant-General's Department and the Inspector-General's Department and an officer of the line not below the rank of major, will be convened at Washington. It will prepare sets of questions on the subjects specified and note the time to be allowed for answering each set. The questions so prepared will be sent to the divisional and departmental boards, and upon their return will be carefully examined and marked by the central board. The central board will then mark the candidates on their records, basing its action on the official records of the War Department, reports of regimental and other commanders, letters and papers submitted by the applicants, and all available sources of information as to the military and personal character of the

applicants and their aptitude for the duties of the position sought. On the completion of the marking the names of the applicants will be arranged in a list according to relative merit, and the officers will be recommended for appointment in the order in which their names appear on such list. Any officer whose name shall stand lower than thirty on such list will be ineligible for further competition.

Boards will be convened at such times as the Secretary of War may direct, by the commanding general Division of Cuba, and by the commanders of departments not included therein, or by as many of them as may be necessary, at the headquarters of such division or departments. Each board will consist of three officers, preferably field officers, selected from the line, adjutant-general's department, or inspector-general's department, and two medical officers. The duties of the latter will be confined to the physical examination of the applicants. The other members of the board will supervise the written examination on the questions prepared by the central board, and on the completion of the examination will send the papers, under seal, to the adjutant-general for transmission to the central board. The time occupied in the preparation of each paper will be noted.

The members of all examining boards will be sworn to faithfully and impartially perform their duties.

Under the requirements of the Army Regulations, every officer of the Army makes an individual report of service on the 30th of June of each year, giving, in addition to the enumeration of purely military duties performed, information on the following subjects, viz: Professional or scientific study or investigation; foreign languages; special knowledge of a particular line of work; business experience, and books written or published or essays and lectures prepared.

Efficiency reports are also made at the end of each fiscal year by commanders of departments, chiefs of staff bureaus, and commanding officers of posts, etc., for every officer under their immediate control and supervision. Extracts of inspection reports containing specially favorable or unfavorable mention of an officer are made and filed with his individual report, and, in like manner, extracts are made from all reports of actions, engagements, etc., in which an officer has been engaged.

It will be seen, therefore, that efficiency reports of officers afford the Secretary of War the fullest possible information respecting all officers and enables him to form a true estimate of the standing, ability, and special fitness of every officer of the Army for any military duty. The new system made necessary to fully carry out the intention of the law of March 2, 1899, results in too much delay in filling vacancies—two now existing in the Adjutant-General's Office and one in the Inspector-General's Office—without adding to the information that may be desired by the War Department in any one case. The repeal of section 6 of the act quoted above is therefore recommended.

Under existing conditions it will require on the average six months to fill a vacancy in either department.

WAR COLLEGE.

The board of officers appointed by direction of the Secretary of War, for the consideration of proper regulations, with a view to the establishment of a war college for the Army has not yet formulated its conclusions on this important subject. The purpose of the Department in establishing this college is to further the higher instruction of the Army; to develop and organize, in accordance with a coherent and unified system, the existing means of professional education and training, and to serve as a coordinated and authoritative agency of this office through which all means of professional military information shall be, at all times at the disposal of the War Department.

COLLEGE DETAILS.

The continued exigencies of the military service during the past year has made it inadvisable, if not absolutely impossible, to make any college details from the officers on the active list. Requests for such details have, however, been complied with in part by the assignment to that duty of officers on the retired list of the Army.

RETIRED LIST FOR OFFICERS.

The recommendation of last year that officers of the Army be placed on the same footing as to retirement as is provided for officers of the Navy by the act of March 3, 1899, increasing the efficiency of the personnel of the Navy, is renewed. Under the provisions of section 9 of this act officers of the Navy involuntarily retired are given the rank and receive three-fourths of the pay of the next higher grade.

Officers of the Army and Navy, sharing, as they do, the dangers and hardships of their professions, are equally entitled to the same benefit of retirement on increased rank under like conditions, and the extended benefit to the Army should take effect from the passage of the law above quoted, and officers of the Army retired since the passage of that act, namely, March 3, 1899, should have the full benefit of its provisions. This is urged solely on the ground of absolute justice.

PROMOTION FROM THE RANKS.

The act of June 18, 1878, provided for the promotion to the grade of commissioned officer of meritorious noncommissioned officers who should be found morally, intellectually, and physically qualified for promotion, and the act of July 30, 1892, extended to all unmarried soldiers under 30 years of age and possessing the requisite qualifications the privilege of competing at prescribed examinations for commissions in the Army. That this last law has operated well in attracting to the ranks a superior class of intelligent and educated young men is evidenced by the yearly increasing number of men who have obtained admission into the commissioned branch of the Army, as shown in the subjoined table:

	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Total.
Cavalry		1		2		1	12	5	21
Artillery						15			15
Infantry	6	12	8	8	22	83	41	58	188
Total	6	13	3	10	22	49	53	63	219

But, experience has shown that two years is too brief a period in which enlisted men can fit themselves for the important duties of commissioned officers. It is only little less than travesty to say that a man can qualify as an officer, by serving as an enlisted man, in one-half the time required for a cadet to complete his course at West Point. It is recommended that the law be amended to read four years instead of

two. This will put appointments from the ranks and the Military Academy on the same footing.

To illustrate, two young men of say 21 years of age enter the service, one going to the Military Academy and the other enlists, the man from the ranks gets his commission in two years and the cadet not until four years, so that the enlisted man becomes the senior by two years and will so remain throughout their entire service.

POST EXCHANGES.

The operation of the post exchanges during the past year, despite the attacks of the opposition outside of the Army, which have been persistent and unrelenting, has been especially gratifying. Every complaint of specific violations of the regulations, or of excesses and abuses, have been promptly and impartially investigated and in every instance found to have been unwarranted.

Reports from the Philippine Islands indicate that the post exchange has become an absolute necessity, our troops being scattered at something over 400 stations, at small towns and villages, where it is quite impossible to purchase anything beyond the ordinary necessities of life; that the sale of beer in these exchanges has prevented the soldiers from drinking the vile native concoctions known as "anisado" and "bino," or "vino," which in the early days of our occupation presented a very serious problem to the military authorities, is proven by abundant testimony.

Similar reports have been received from Cuba, where the conditions are very much like those in the Philippine Islands; several officers, including General Lee, having reported that drunkenness has almost entirely disappeared since the sale of beer has been permitted in their commands. The chief surgeon at Santiago de Cuba reports that after the troops were scattered, owing to the outbreak of yellow fever in 1899, canteens were discontinued at many posts in eastern Cuba, but that alcoholism and malarial and intestinal troubles increased to an alarming extent, the latter almost fourfold at some posts, and as the increase could not be traced to the food or water, the surgeons attributed it to rum, which is easily procured at very slight cost in that section; that canteens were then opened, and the subsidence of these troubles was as remarkable as their rise (in one post, in one month, intestinal troubles decreased 80 per cent). He therefore believes that to close the canteen in that country, without first closing all possible avenues for the procuring of rum within a radius of 10 miles, would be sanitary suicide, and "from practical observations is led to the conclusion that the closing of the post canteen in Cuba would be an unjustifiable as well as a dangerous experiment."

What has been said of Cuba is equally applicable to Porto Rico. The inspector-general of that department, in his annual report for 1900, remarks as follows:

Here we find exceptional conditions, all tending in a marked degree to drag the soldier down to a lower social place than any of our Army has ever known before. With native rum at 2 or 3 cents per drink, and the cheap complacency of the degraded female attendants in the saloons which abound near every garrison, it is easy to discern the causes to which so many cases of drunkenness and other disorders are attributable. Because of the absence of suitable recreative resorts when off duty and the wide gulf which a foreign language has placed between them and the

better classes of the people, the men are forced to seek diversion among the lower elements. I understand that efforts will be renewed at the next session of Congress to prohibit the sale of beer in post canteens, and I therefore beg to record the conviction that, so far as garrisons in the islands are concerned, such legislation would be ill advised.

The commanding officer of the Department of Texas has brought to the attention of the Department a new feature of the exchange system, which he thinks successfully solves a problem which has been a source of more or less trouble in the Army namely—the washing of the clothing of enlisted men. It has been difficult to hold men to a strict accountability for their appearance at inspections. The plea that their washerwoman had failed to get their clothes done in time has to be accepted, when proven true, and the woman is always beyond discipline. Moreover, each pay day brings the annoyance of solicitation by washerwomen for pay claimed to be due them from the men, and as a matter of fact enlisted men at most of the posts of the Army have to pay from \$2.50 to \$4 a month to laundresses, and in the summer time especially, when they are required to wear khaki uniforms and white trousers, the expense for their washing is a burden on their small pay.

As an experiment the post exchange at Fort Ringgold, Tex., started a laundry, with the wife of an enlisted man as manager, and has discovered after a few months' operation that, calculating all expenses, it is able to do all the laundry work for the garrison at an expense of \$1 per man for all months excepting June, July, August, and September, for which months it can be done for \$1.25 per man, as well as to deliver the clean clothing to the men on Friday afternoons, so as to enable all to present a neat appearance at the Saturday inspection. It is entirely optional with the men as to whether or not they shall patronize the laundry, but obviously the small expense presents an inducement that few of them resist. The result of this experiment has been communicated to the Army, and its successful installation at the larger military posts may be anticipated.

During the year ending June 30, 1900, the aggregate receipts of the exchanges in operation in the Army, so far as reports have been received, amounted to \$1,845,927.55, and there was received as money on deposit \$69,934.82, making the total amount of money received \$1,915,862.37. There was expended for merchandise purchased, rents, fixtures, and repairs, and expenses of operation \$1,381,423.23, which, less deposits, gives a profit of \$464,504.32. From this amount there was donated to the funds of the several regimental bands \$10,363.84; to the maintenance of post gardens, \$1,362.82; to post libraries, \$1,476.57, to gymnasiums, \$7,008.63; as prizes for the encouragement of athletic sports, \$3,653.52; and after setting aside the sum of \$159,199.47 as a reserve fund to meet anticipated expenses for at least one month there was passed to the credit of the companies and mess funds for the benefit of the soldiers, in the form of dividends, the sum of \$293,301.28. The net value of these exchanges—that is to say, the balance of their combined assets over their liabilities—was on June 30, 1900, \$326,068.01.

THE RECRUITING SERVICE.

Regular Army.—In October, 1899, there were sixty regular recruiting stations of the general service in large cities. The number of such stations has varied but little during the year, some being closed as

they became unproductive and others opened in different localities; the number now in operation is 62. In several instances one officer conducts two such stations. Again, many of the recruiting officers stationed in these cities visit and conduct temporary stations also, thus canvassing the sections surrounding their main stations. In this way over one hundred and sixty temporary stations have been in operation for a longer or shorter time during the year, the average number in operation at a time being about forty (not counting places canvassed by volunteer recruiting officers, under the direction of general recruiting officers, during October, 1899).

The only special regimental recruiting party that was out October 1, 1899, was recalled during that month. The large number of regiments serving abroad, in whole or in part, renders special regimental recruiting for the time impracticable.

The general recruiting detail was changed in December, 1899, to consist of one officer from each regiment, the officers being nominated by their regimental commanders, thus affording an opportunity for home service to a number of officers who had been in active field service during the period of hostilities.

Temporary details have been made as necessary of officers belonging to depot battalions stationed within the United States to recruit for their own battalions, as well as for the general service.

In October, 1899, the enlisted strength of the Regular Army was about 6,400 below the authorized maximum, and active measures have been continued throughout the year to supply this deficiency and meet current losses.

A special feature during the year has been the recruiting of depot battalions, designated in accordance with General Orders No., 153, August 21, 1899, from this office, with a view to preparing a trained body of men for foreign service as they might be needed.

Under existing conditions the home or depot battalion offers the best means of recruitment of depleted regiments, and at the same time offers by way of station about the only relief possible to give the officers a tour of duty at home, the plan being that the home battalion shall remain on recruiting service and instruction for one year. This plan, fully carried out, will give the officers one year at home and two years of active service.

Constant efforts have been made to obtain suitable men for the artillery, both light and heavy. Instructions have been given to recruiting officers to exercise great care to accept only such men for the artillery as meet the special requirements of that arm. During the year upward of sixty batteries have been brought at times to their maximum strength.

Special efforts have also been directed in filling regiments when designated for service in the Philippines or China, as well as to providing men for vacancies occurring in regiments already in the Orient, and in Cuba and Porto Rico.

All organizations sailing for the Orient have been filled with recruits prior to their departure from the United States, the number of recruits thus supplied between July 1 and September 20, 1900, to regiments about to sail as indicated being 1,452. Between September 20, 1899, and September 20, 1900, 3,951 recruits were forwarded to regiments already in the Philippines or China, while on the latter date there were 1,826 recruits at different rendezvous in the United States undergoing

instruction and awaiting the sailing of transports. During the same yearly period 1,212 recruits were forwarded to Cuba, and 375 to Porto Rico for regiments serving therein. There were also 255 recruits at rendezvous in the United States on September 20, 1900, for regiments in Cuba and Porto Rico.

In addition to the recruits thus supplied transfers were made in April and May, 1900, of 485 men from depot battalions in the United States to active battalions in Cuba, the vacancies thus created in the depot battalions being speedily filled, with a view to another draft for foreign service.

The total number of enlistments and reenlistments in the Regular Army during the fiscal year ending June 30, 1900, exclusive of the Hospital Corps, was 19,549, classified as follows:

For the general service	18, 929
For the special recruiting service	88
For staff departments	532
Total	19, 549

Of the 19,549 accepted applicants, 16,548 were native born and 3,001 of foreign birth; 18,649 were white, 870 colored, and 30 Indians. The enlistments numbered 15,588 and the reenlistments 3,961. Excluding reenlistments, the percentage of native born among the original enlistments was 88½. The reports show that the recruiting officers making the 19,017 enlistments embraced in the first two items of foregoing list rejected 69,694 applicants—about 78 per cent of the number seeking enlistment—as lacking in either legal, mental, moral, or physical qualifications; 987 of these were rejected as aliens, and 2,038 for illiteracy.

The total number of enlistments and reenlistments for the Hospital Corps during the fiscal year was 1,762, of which number 1,463 were native born and 299 of foreign birth; 1,686 were white and 76 colored. The enlistments numbered 1,349 and the reenlistments 413.

Including the Hospital Corps, the aggregate of all enlistments and reenlistments for the Regular Army during the fiscal year ending June 30, 1900, was 21,311.

United States Volunteers.—The last one of the twenty-five regiments of United States Volunteers left the rendezvous where it was organized November 15, 1899, en route to Manila. Recruiting in the United States for the volunteer regiments practically ceased in the latter part of October of that year, a few enlistments only being made thereafter to fill vacancies caused by disability, etc., prior to the sailing of regiments for the Philippines.

The number of volunteers enlisted for the twenty-five regiments since September 20, 1899, is 8,432, of whom 169 were enlisted in the Philippines, these latter being generally a special class of men, such as musicians, cooks, etc.

Porto Rico Regiment, U. S. Volunteers.—In February, 1900, the President authorized the organization of a mounted battalion of Porto Rican troops, to form with the infantry battalion already organized a Porto Rico regiment of native troops. The number of enlistments made for this regiment since September 20, 1899, to fill the mounted battalion and complete the recruitment of the infantry battalion, is 542.

GOVERNMENT HOSPITAL FOR THE INSANE.

The following were committed to the Government Hospital for the Insane under the order of the Secretary of War from September 1, 1899, to September 1, 1900:

Officer of the United States Army.....	1
Officer of the United States Army (retired).....	1
Officer of the United States Volunteers.....	1
Enlisted men of the United States Army.....	110
Enlisted men of the United States Army (retired).....	5
Enlisted men of the United States Volunteers.....	27
Late soldiers of the United States Army.....	4
Civilian employees of the Army.....	2
Total.....	151

THE ADJUTANT-GENERAL'S OFFICE.

With the addition of two chiefs of divisions, authorized by the act of April 17, 1900, the legal organization of the regular force of this office remains unchanged, and the temporary force has been continued. The conditions which have made the employment of temporary clerks necessary still exist and the volume of business taxes the energies of the entire clerical force, laboring as it does, and has done during the past two years, under the serious disadvantage of overcrowded rooms. This disadvantage is emphasized by the statement that the Adjutant-General's Office—the important bureau of correspondence and orders—occupies rooms located on five different floors either in the north, west, or center wings. While the State, War, and Navy building is generally assumed, from its size, to be capable of comfortably accommodating the three Executive Departments located therein, in point of fact it utterly fails to do so, and, unless provision is made by Congress for the renting of additional outside buildings for the accommodation of some of the minor bureaus, the present unfavorable conditions must speedily become worse, if not positively dangerous, as the weight of the files and papers that are required in the several bureaus for the prompt and correct conduct of business will soon exceed the safety load that can be placed on the floors of this building; indeed, in some of the rooms allotted to this office that weight has already, and unavoidably, been exceeded.

In justice to those clerks of the temporary force who during the past two years have demonstrated their efficiency and capacity for high-class work, it is earnestly hoped that means may be devised that will permit their transfer to the regular roll on the happening of vacancies therein, either by granting them a special examination or by authorizing their names to be placed on the Civil Service Commission register of eligibles, on the recommendation of the head of the bureau in which they are employed, approved by the Secretary of War.

The recommendation is renewed that the law governing leave of absence be amended so as to make the annual leave cumulative, not to exceed ninety days, that valued clerks whose devotion to duty prevents their availing themselves of the annual leave in any calendar year may be able at a future time to obtain a lengthened leave for rest or recreation without loss of pay.

To the officers on duty in this office—Col. Thomas Ward, Lieut. Col. William H. Carter, Majors George Andrews, John A. Johnston, William A. Simpson, assistant adjutants-general, and Capt. Edwin A. Root, Tenth Infantry—acknowledgment of faithful and efficient service is made.

Respectfully submitted.

H. C. CORBIN,
Adjutant-General.

The LIEUTENANT-GENERAL OF THE ARMY.

UNITED STATES ACCORDING TO

Hospital stewards.	Acting hospital stewards.	First-class sergeants, Signal Corps.	Sergeant-majors.	Quartermaster-sergeants.	Commissary-sergeants.	Squadron or battalion sergeant-major.	Privates, second class.	Privates, Hospital Corps.	Privates.	Total.	Aggregate.	Officers holding commissions in volunteer forces.
Gen.											8	1
Adj.											15	2
Ins.											9	1
Jud.											8	1
Qu.										105	163	19
Sut.										173	196	8
Met 64	389							3,807		44,360	4,540	25
Pa.											26	
Co.						30	265			687	813	1
Ord.						50	150			664	725	
Sig.		79				71	43			748	759	6
Re.											2	
Ch.											30	
Fin.			1	1	1				936	1,247	1,294	4
Sec.			1	1	1				729	1,040	1,087	6
Th.			1	1	1				1,032	1,343	1,390	7
For.			1	1	1				1,121	1,432	1,479	10
Fl.			1	1	1				873	1,184	1,231	6
Six.			1	1	1				878	1,189	1,236	7
Se.			1	1	1				791	1,102	1,149	7
El.			1	1	1				864	1,175	1,222	8
Ni.			1	1	1				896	1,207	1,255	4
Te.			1	1	1				858	1,164	1,212	8
			10	10	10	3			8,973	12,068	12,555	67
Fin.			1	1	1				1,136	1,549	1,600	4
Sec.			1	1	1				1,031	1,444	1,495	5
Th.			1	1	1				1,170	1,583	1,634	3
For.			1	1	1				1,058	1,471	1,522	8
Fl.			1	1	1				1,147	1,560	1,609	3
Six.			1	1	1				1,281	1,694	1,744	6
Se.			1	1	1				1,264	1,677	1,725	
			7	7					8,087	10,978	11,329	29
Fin.			1	1	1				1,196	1,493	1,539	3
Sec.			1	1	1				1,091	1,389	1,434	6
Th.			1	1	1				1,107	1,406	1,451	2
For.			1	1	1				1,137	1,435	1,480	6
Fl.			1	1	1				1,152	1,450	1,496	3
Six.			1	1	1				1,107	1,406	1,451	5
Se.			1	1	1				992	1,290	1,336	6
El.			1	1	1				1,135	1,433	1,480	1
Ni.			1	1	1				1,175	1,473	1,519	1
Te.			1	1	1				851	1,149	1,195	2
El.			1	1	1				933	1,231	1,276	2
Tw.			1	1	1				1,105	1,403	1,449	1
Tw.			1	1	1				1,101	1,399	1,445	2
Tw.			1	1	1				1,158	1,456	1,503	3
Tw.			1	1	1				1,085	1,383	1,429	2
Tw.			1	1	1				1,096	1,394	1,440	4
Tw.			1	1	1				1,129	1,427	1,473	3
Tw.			1	1	1				1,212	1,510	1,557	2
Tw.			1	1	1				1,130	1,428	1,475	3
Tw.			1	1	1				1,144	1,442	1,489	4
Tw.			1	1	1				1,094	1,392	1,439	1
Tw.			1	1	1				1,106	1,404	1,449	3
Tw.			1	1	1				1,252	1,550	1,597	5
Tw.			1	1	1				1,192	1,490	1,537	5
Tw.			1	1	1				1,299	1,597	1,645	3
			25	25	25	7			27,978	35,428	36,584	78
Un.									191	279	279	
El.										42	42	
In.									74	74	74	
Re.									2,600	2,600	2,600	
64	389	79	42	42	35	10	458	3,807	47,903	463,861	466,396	233

and that of the Volunteers, 35,000. The

H. C. CORBIN,
Adjutant-General.

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ED STATES ACCORDING TO THE

Acting hospital stewards.	First-class sergeants, Signal Corps.	Sergeant-majors.	Quartermaster-sergeants.	Commissary-sergeants.	Squadron or battalion sergeant-majors.	Battalion quartermaster-sergeants.	Privates, second class.	Privates, Hospital Corps.	Privates.	Total.	Aggregate.	Officers holding commissions in the Regular Army.
.....	22	16
.....	9	9
.....	9	7
.....	5	3
.....	87	38
.....	20	10
.....	34	12
.....	30	.....
.....	47	7
.....	263	102
.....	1	1	1	8	1	.....	.....	714	1,025	1,075	5
.....	1	.....	.....	.....	849	451	466	3
.....	1	1	1	4	1	.....	.....	1,063	1,476	1,541	8
.....	1	1	1	3	.....	.....	.....	887	1,188	1,238	5
.....	1	1	1	3	.....	.....	.....	888	1,189	1,236	5
.....	1	1	1	3	.....	.....	.....	927	1,228	1,278	4
.....	1	1	1	3	.....	.....	.....	908	1,209	1,258	4
.....	1	1	1	3	.....	.....	.....	931	1,232	1,282	3
.....	1	1	1	3	.....	.....	.....	904	1,205	1,255	4
.....	1	1	1	3	.....	.....	.....	870	1,171	1,221	3
.....	1	1	1	3	.....	.....	.....	920	1,221	1,271	4
.....	1	1	1	3	.....	.....	.....	912	1,213	1,262	6
.....	1	1	1	3	.....	.....	.....	930	1,231	1,281	8
.....	1	1	1	3	.....	.....	.....	645	946	996	2
.....	1	1	1	3	.....	.....	.....	693	994	1,043	4
.....	1	1	1	3	.....	.....	.....	901	1,202	1,251	5
.....	1	1	1	3	.....	.....	.....	906	1,207	1,256	5
.....	1	1	1	3	.....	.....	.....	903	1,204	1,254	5
.....	1	1	1	3	.....	.....	.....	901	1,202	1,252	7
.....	1	1	1	3	.....	.....	.....	889	1,190	1,240	6
.....	1	1	1	3	.....	.....	.....	927	1,228	1,277	6
.....	1	1	1	3	.....	.....	.....	948	1,249	1,299	5
.....	1	1	1	3	.....	.....	.....	935	1,236	1,285	4
.....	1	1	1	3	.....	.....	.....	935	1,236	1,286	8
.....	1	1	1	3	.....	.....	.....	940	1,241	1,290	5
.....	1	1	1	3	.....	.....	.....	976	1,277	1,327	6
.....	1	1	1	3	.....	.....	.....	924	1,225	1,275	4
2	2	.....	.....	.....	691	879	910	5
74	24	24	24	74	.....	.....	.....	.....	22,191	29,608	30,823	123
74	25	25	25	78	1	.....	.....	.....	23,254	31,079	32,627	233
389	79	42	42	35	106	1	458	8,807	47,908	668,861	666,396	.....
.....	233	.....
463	79	67	67	60	184	2	458	8,807	71,157	694,940	698,790	.....

avoid counting them twice, not included in and that of the Volunteers, 35,000. The Hospital

H. C. CORBIN,
Adjutant-General.

B.--

REGULAR ARMY.

General officers	
Adjutant-General's Department	
Inspector-General's Department	
Judge-Advocate-General's Department	
Quartermaster's Department	
Subsistence Department	
Medical Department	
Pay Department	
Corps of Engineers	
Ordnance Department	
Signal Corps	
Record and Pension Office	
Chaplains	
Military Academy	
Electrician sergeants	
Recruiting parties, recruits, etc.	
Indian scouts	
Cavalry	
Artillery	
Infantry	
Total	

VOLUNTEER ARMY.

General officers	
Adjutant-General's Department	
Inspector-General's Department	
Judge-Advocate-General's Department	
Quartermaster's Department	
Subsistence Department	
Medical Department	
Pay Department	
Signal Corps	
Cavalry	
Infantry	
Total	
Grand total	

Country

United States
Cuba
Porto Rico
Alaska
Hawaii
Philippine Islands
China

Total.

ADJUTANT-GENERAL
WASH.

July 1, 1

March, 1

Officers.	E
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I	440
II	2,315

III	19
	75
	70
	22
	50
	277

	68
	98
	123
	29
N	378

	3,964
--	-------

Total	2	1	5	1	37	107	2,140	1	9	3
First United States	1	1	1	2	1	88	382			
Second United States	1	1	1	1	2	51	412			
Third United States	1	6	2	1	3	89	363		24	1
Fourth United States	1	4	4	1	2	27	564	2	23	1
Fifth United States	1	1	1	1	3	56	358			
Sixth United States	2	2	1	1	1	140	455			
Seventh United States	1	1	1	1	1	71	414			
Eighth United States	1	1	1	1	1	34	325			
Ninth United States	2	2	1	4	4	11	252			
Tenth United States	2	3	1	1	1		231			
Total	13	14	7	11	17	567	3,756	2	47	2
First United States	1	1	1	1	1	104	443			1
Second United States	1	1	1	1	3	89	461			
Third United States	1	1	1	2	3	138	1,008		6	
Fourth United States	1	1	1	1	4	81	355		2	
Fifth United States	2	2	1	1	1	158	645	1	6	
Sixth United States	2	2	1	1	1	22	317		2	
Seventh United States	2	1	1	3	3	226	509			
Total	6	5	6	4	15	818	3,633	1	16	1
First United States	2	1	1	2	2	80	369			
Second United States	1	1	1	1	3	46	352			
Third United States	1	3	1	1	1	16	255		3	1
Fourth United States	1	2	1	1	1	46	394		22	
Fifth United States	1	1	1	2	2	77	320			
Sixth United States	1	4	1	1	1		177	1	27	
Seventh United States	1	1	2	3	3	72	445	1		
Eighth United States	1	1	1	2	3	98	425			
Ninth United States	1	1	1	2	3	35	275		21	
Tenth United States	1	1	1	2	4	55	336			
Eleventh United States	2	2	1	2	2	15	303			
Twelfth United States	1	2	1	2	2	24	318	2	22	
Thirteenth United States	1	2	1	2	5	21	261	1	9	3
Fourteenth United States	1	1	1	1	1	31	951	1	12	
Fifteenth United States	2	4	2	1	1	120	389			
Sixteenth United States	1	1	2	1	1	11	187	2	15	1
Seventeenth United States	1	1	1	1	1	33	243	3	29	
Eighteenth United States	1	1	1	1	1	1	873	2	26	
Nineteenth United States	2	1	1	1	3	73	268	1	31	3
Twentieth United States	1	1	1	2	2	17	261			
Twenty-first United States	1	5	1	2	2	28	306	2	33	
Twenty-second United States	1	2	2	2	1	16	306	1	8	
Twenty-third United States	1	17	1	2	2	8	807	1	21	
Twenty-fourth United States	2	3	4	4	3	23	248		16	6
Twenty-fifth United States	2	3	4	4	3	9	172		14	1
Total	2	20	53	23	18	47	955	18	309	15
West Point Detachment					5	12	77			
Indian scouts							22			
Electrician sergeants	1	1			2	404	1,735			
Recruits at rendezvous										
Total	5	1	1		7	416	1,834			
Grand total	42	74	41	34	123	2,863	20,604	22	381	21

ADJ

H. C. CORBIN,
Adjutant-General, U. S. A.

ORGANIZATION					WOUNDED.			MISSING.	
	Drowned.	Suicide.	Murder or homicide.	Deserted.	Total.	Officers.	Enlisted men.	Officers.	Enlisted men.
General officers.....									
Adjutant-General's Department.....									
Inspector-General's Department.....									
Judge-Advocate-General's Department.....						2			
Quartermaster's Department.....									
Subsistence Department.....									
Medical Department.....									
Pay Department.....									
Engineer Department.....					163				
Signal Corps.....									
Total.....					163	2			
Eleventh Cavalry, U. S.....	1	1		22	78	4	25		
Squadron Philippine Cavalry.....					1				
First Troop Nevada Cavalry.....					35				
Total.....	1	1		22	114	4	25		
California Volunteer Cavalry.....					78				
Utah Volunteer Light Cavalry.....					4				
Wyoming Volunteer Light Cavalry.....					26				
Total.....					108				
First California Volunteer Infantry.....					136		1		
First Colorado Volunteer Infantry.....					148				
First Idaho Volunteer Infantry.....					106				
Fifty-first Iowa Volunteer Infantry.....					182	1	5		
Twentieth Kansas Volunteer Infantry.....					184				
Thirteenth Minnesota Volunteer Infantry.....					113				
First Montana Volunteer Infantry.....					195				
First Nebraska Volunteer Infantry.....				1	2				
First North Dakota Volunteer Infantry.....					89				
Second Oregon Volunteer Infantry.....					35				
Tenth Pennsylvania Volunteer Infantry.....					3				
First South Dakota Volunteer Infantry.....					123				
First Tennessee Volunteer Infantry.....					281				
First Washington Volunteer Infantry.....					155		2		
First Wyoming Volunteer Infantry.....					48				
Twenty-sixth Infantry.....				89	318	1	25		1
Twenty-seventh Infantry.....	2		1	96	308		5		1
Twenty-eighth Infantry.....	1			151	432	1	16		
Twenty-ninth Infantry.....				34	240	1	3		2
Thirtieth Infantry, U. S.....	2	1		19	165	1	15		8
Thirty-first Infantry, U. S.....	2			39	214				
Thirty-second Infantry.....	1			32	262	1	5		1
Thirty-third Infantry.....	1			15	132	1	41		1
Thirty-fourth Infantry.....	3			23	190		14		2
Thirty-fifth Infantry.....		2		35	213	2	18		2
Thirty-sixth Infantry.....		2		14	86	7	22		
Thirty-seventh Infantry.....	3			19	89	1	19		2
Thirty-eighth Infantry.....	1		1	31	357	2	17		
Thirty-ninth Infantry.....	2			28	318	3	22		1
Fortieth Infantry, U. S.....				29	232	4	41		1
Forty-first Infantry, U. S.....	1			106	263				
Forty-second Infantry.....			1	48	254	1	4		
Forty-third Infantry, U. S.....	2		1	68	247	3	47		3
Forty-fourth Infantry.....			1	16	169	1	6		
Forty-fifth Infantry, U. S.....	1			37	271	1	18		1
Forty-sixth Infantry.....				53	279		6		
Forty-seventh Infantry.....				106	313	2	36		
Forty-eighth Infantry.....	4			14	90		4		
Forty-ninth Infantry.....	2		1	5	327		1		
Porto Rico Regiment.....		1	1		80				
Total.....	28	6	7	1,108	7,649	34	393		26
Grand total.....	29	7	7	1,130	8,084	40	418		26

ADJUTANT-GENERAL,
WAR 1900

H. C. CORBIN,
Adjutant-General, U. S. A.

G.—Deaths in the armies of the United States between July 1, 1899, and June 30, 1900.

Country.	Killed.		Died of wounds.		Disease.		Accident.		Drowned.		Sul- cide.		Murder or hom- icide.		Total.	
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
REGULARS.																
United States			2		8	167	2	14		9	17		12	12		219
Cuba					3	125		7		6	5		3	3		146
Alaska						2				1						3
Porto Rico						21		2			2		3			28
Hawallian Islands					1	3								1		3
Philippine Islands.....	14	106	4	22	6	528	1	19	1	58	1	14	16	26	762	
At sea.....					2	63					3			2		66
Total.....	a14	106	a6	22	a19	909	3	42	1	74	a1	41	34	a44	1,227	
VOLUNTEERS.																
United States			1			32		8		2	1	1	2	2		45
Cuba					4									4		
Alaska																
Porto Rico						4		2			1		1			8
Hawallian Islands						1										1
Philippine Islands.....	5	162	2	43	9	374		17	2	26	5	5	4	23	631	
At sea.....					1	17				1				1		18
Total.....	a5	162	a3	43	a14	428		27	2	29	a6	7	7	a30	708	
Aggregate	a17	267	a8	65	a30	1,337	3	69	3	103	a6	48	41	a67	1,930	

a Seven officers of the Regular Army who died also held commissions in the Volunteer forces, in which they are included, and are, to avoid counting twice, deducted from the aggregate.

H. C. CORBIN,
Adjutant-General, U. S. A.

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 1, 1900.

H.—Dates of sailing and troops sent to Philippine Islands.

[Maj. Gen. Arthur MacArthur relieved General Otis in command of the Philippines May 5, 1900. At the date of last report there had been forwarded to the Philippines 776 officers and 61,917 enlisted men. Since that time transports carrying troops have left as herein indicated.]

Date of sailing.	Transport.	Commanding officer.	Command.	Strength.		Date of arrival in Manila.
				Officers.	Enlisted men.	
1899						
Oct. 26	Tartar.....	Lt. Col. R. W. Leighton, 28th Inf.	A, B, C, D, E, F, G and H, 28th Inf.	31	829	Nov. 23, 1899
Do.	Manauise.....	Lt. Col. W. C. Hayes, 31st Inf.	Field and staff, I, K, L, M, 31st Inf.	15	380	Nov. 27, 1899
Do.	Newport.....	Maj. J. B. Porter, 28th Inf.	I, K, L, M, 28th Inf., deta. offa. Hosp. Corps and Sig. Corps.	27	431	Nov. 23, 1899
Oct. 28	City of Peking.....	Col. J. S. Pettit, 31st Inf.	Hdqs. A, B, C, D, E, F, G, H, 31st Inf., deta. offa. Hosp. Corps and recs.	39	938	Nov. 27, 1899
Nov. 3	Pennsylvania (from Portland, Oreg.).....	Col. R. L. Bullard, 39th Inf.	A, B, C, D, E, F, G, H, 39th Inf., deta. offa. Hosp. Corps and recs.	33	999	Dec. 7, 1899
Do.	Olympia (from Portland, Oreg.).....	Maj. J. H. Parker, 39th Inf.	I, K, L, M, 39th Inf., L, M, 45th Inf., det. Hosp. Corps and recs.	24	680	Do.
Nov. 4	Thomas (from New York City).....	Col. Walter Howe, 47th Inf.	47th Inf. and det. recs.	52	1,323	Dec. 22, 1899
Nov. 14	City of Sydney.....	Col. W. S. Schuyler, 46th Inf.	Hdqs. A, B, C, D, E, F, 46th Inf., deta. offa. and recs.	35	668	Dec. 15, 1899
Do.	Pathan.....	Maj. S. W. Miller, 46th Inf.	G, H, I, K, L, M, 46th Inf.	22	614	Do.
Nov. 16	Meade (from New York City).....	Col. A. Murray, 43d Inf.	Hdqs. A, B, C, D, E, F, G, H, I, K, 43d Inf., det. Hosp. Corps.	41	1,080	Dec. 31, 1899
Do.	Senator.....	Col. J. H. Dorst, 45th Inf.	Hdqs. E, F, G, H, I, 45th Inf., deta. offa. Hosp. Corps and recs.	21	605	Dec. 21, 1899
Do.	Bennahr.....	Maj. D. A. Frederick, 45th Inf.	A, B, C, D, K, 45th Inf., A, N, 6th Art., deta. off and recs.	24	716	Do.
Nov. 20	Hancock.....	Col. E. J. McClelland, 44th Inf.	Hdqs. A, E, F, G, H, I, K, L, M, 44th Inf., deta. off. and Hosp. Corps.	40	981	Dec. 19, 1899
Do.	City of Pueblo.....	Maj. H. Hale, 44th Inf.	B, C, D, 44th Inf., L, M, 43d Inf., deta. off. and Hosp. Corps.	25	572	Do.
Do.	Logan (from New York City).....	Col. E. T. C. Richmond, 41st Inf.	41st Inf.	52	1,313	Jan. 5, 1900
Nov. 21	St. Paul.....	Col. G. S. Anderson, 38th Inf.	Hdqs. E, F, G, H, K, L, 38th Inf., deta. offa. and recs.	29	634	Dec. 26, 1899
Do.	Duke of Fife.....	Maj. C. H. Muir, 38th Inf.	A, B, C, D, I, M, 38th Inf., deta. off. and men	22	723	Do.
Nov. 24	Ohio.....	Col. E. A. Godwin, 40th Inf.	Hdqs. A, B, C, D, L, M, 40th Inf., deta. off. Hosp. Corps and recs.	23	881	Dec. 26, 1899
Do.	Indiana.....	Maj. W. E. Craghill, 40th Inf.	E, F, G, H, I, K, 40th Inf., deta. off and recs.	29	720	Do.
Nov. 30	Dabney Vestcock.....	Maj. W. C. Brown, 42d Inf.	A, B, C, D, E, F, G, 42d Inf., det. Hosp. Corps.	26	725	Dec. 31, 1899
Do.	Columbia.....	Lt. Col. J. H. Beacom, 42d Inf.	Hdqs. H, I, K, L, M, 42d Inf., deta. Hosp. Corps.	21	549	Do.
Dec. 2	Warren.....	Col. W. H. Beck, 49th Inf.	Hdqs. A, B, C, D, E, F, G, H, 49th Inf., det. Hosp. Corps.	35	863	Jan. 2, 1900
Dec. 6	Sherman.....	Maj. G. W. Kirkman, 49th Inf.	I, K, L, M, 49th Inf., deta. offa. Hosp. Corps, Sig. Corps and recs.	25	622	Do.
Dec. 13	Victoria.....	Capt. J. S. Michael, A. Q. M. Vols.	Det. with 28 horses, 316 mules.....	1	12	Jan. 6, 1900
Dec. 21	Grant.....	Col. W. P. Duval, 46th Inf.	46th Inf., deta. off. men, Hosp. Corps.	61	1,314	Jan. 26, 1900

Dec. 28 1900	Westminster	2d Lt. W. H. Winters, 3d Cav.	Det. with 226 horses, 80 mules	1	7	Feb. 6, 1900
Jan. 10	Artec	Capt. G. H. G. Gale, 4th Cav.	Det. with 165 horses, 185 mules.	2	2	Feb. 23, 1900
Jan. 11	Tak	Capt. H. B. Freeman, 24th Inf.	Det. off. and recruits.	16	458	Feb. 18, 1900
Jan. 17	Shert	Maj. L. H. Roudiez, 4th Inf.	Det. off. and recruits.	1	11	Feb. 18, 1900
Jan. 19	Port Albert (from Tacoma, Wash.)	Maj. W. S. Wood, A. Q. M.	Civ. employees, 400 horses, 115 mules.	1	30	Mar. 16, 1900
Jan. 25	Pennyvaiah.	1st Lt. T. B. Seagle, 38th Inf.	Det. off. and men, Hosp. and Sig. Corps.	1	80	Feb. 24, 1900
Feb. 17	Sherman	Maj. C. D. Cowles, 17th Inf.	Det. off. Hosp. Corps, Sig. Corps. and recruits.	9	383	Mar. 14, 1900
Mar. 1	Thomas	Capt. E. F. Glenn, 25th Inf.	Det. off. Hosp. Corps, Sig. Corps. and recruits.	9	88	Mar. 17, 1900
Mar. 17	Thomas	Lt. L. R. Burgess, 5th Art.	Det. off. and recruits.	9	88	Mar. 17, 1900
Mar. 17	Thomas	Col. Wirt Davis, 3d Cav.	Det. off. men, Hosp. Corps, Sig. Corps.	46	695	Mar. 17, 1900
Mar. 31	Sumner (from New York City)	Capt. C. D. Palmer, A. Q. M.	Det. off. men, Hosp. and Sig. Corps. and recruits.	2	144	May 30, 1900
Apr. 1	Warren	Capt. E. L. King, 11th Cav.	Det. off. and men.	16	467	May 28, 1900
May 16	Legen	Col. C. C. Carr, 4th Cav.	Det. off. Hosp. Corps and enl. men	7	161	June 14, 1900
June 1	Sherman	Maj. C. A. Williams, 17th Inf.	Det. off. Hosp. Corps and recruits.	3	22	June 28, 1900
June 16	Thomas	1st Lt. E. R. Helberg, 6th Cav.	Det. with 147 horses, 94 mules.	2	392	July 1, 1900
July 1	Clemaughe	1st Lt. C. D. Rhodes, 6th Cav.	Det. with 252 horses.	2	24	Aug. 8, 1900
July 3	Leelanua	Gen. A. R. Chaffee, U. S. Vols.	A. B. C. D. I. K. L. M. 6th Cav. and recs.	27	1,090	Aug. 8, 1900
July 6	Lennox (from Portland, Oreg.) a.	1st Lt. F. C. Marshall, 6th Cav.	Det. with 370 horses, 100 mules.	2	43	July 28, 1900
July 7	Sancox	Col. E. Moale, 15th Inf.	Hdqs., A. B. C. D. 15th Inf. and off.	30	542	Aug. 2, 1900
July 17	Hancock	Maj. R. Dickens, Marine Corps	I. K. L. M. 15th Inf. B. G. H. I. 3d Cav., E. Engrs.,	13	472	Aug. 10, 1900
July 29	Hancock	Lt. Col. Constant Williams, 15th Inf.	det. off. Hosp. Corps and recruits.	40	1,057	Aug. 21, 1900
Aug. 1			Hdqs., A. B. C. D. I. K. L. M. 1st Cav., det. Hosp. Corps.	22	762	Sept. 4, 1900
Aug. 7	Garrone (from Seattle, Wash.)	Lt. Col. T. C. Lebo, 1st Cav.	Det. with 889 horses and 12 mules	2	97	Sept. 9, 1900
Aug. 11	Palting (from Seattle, Wash.)	Lt. E. A. Hickman, 1st Cav.	Hdqs., A. B. C. D. E. F. G. H. 9th Cav., det. off.,	2	987	Sept. 16, 1900
Aug. 16	Warren	Col. T. McGregor, 9th Cav.	Hosp. Corps, and recs.	39		
Do.	Artec	Lt. C. A. Hedekin, 3d Cav.	Det. with 452 horses and 50 mules	2	53	Sept. 20, 1900
Do.	Athenian (from Seattle, Wash.)	Capt. L. C. Baker, A. Q. M. Vols.	Det. 1st and 9th Cav.	2	28	Sept. 20, 1900
Aug. 21	Sherman	Maj. G. P. Borden, 5th Inf.	E. F. G. H. 2d Inf., I. K. L. M. 5th Inf., I. K. L. M.,	37	1,546	Sept. 16, 1900
Aug. 22	Strathgyle	Lt. C. F. Stoddert, 9th Cav.	8th Inf., det. Hosp. Corps and Sig. Corps.	2		
Sept. 1	Lozan	Col. A. A. Harbach, 1st Inf.	Det. with 475 horses and 44 mules	2	80	Oct. 4, 1900
Sept. 3	Rosecrans	Maj. G. G. Greenough, 7th Art.	1st and 3d Battn, 1st Inf. and 3d Battn, 2d Inf.	41	1,625	Oct. 1, 1900
Sept. 4	Federica	Lt. L. G. Berry, 7th Art.	C. M. 7th Art., and det.	7	634	Oct. 8, 1900
Sept. 18	Thomas	Col. R. Combs, 5th Inf.	Det. 7th Art., and det.	3	35	Oct. 15, 1900
Sept. 25	Lennox (from Portland, Oreg.)	Lt. A. M. Ferguson, 38th Inf.	1st Battn, 5th Inf. and 2d Battn, 8th Inf., and det.	39	1,538	
Oct. 1	Hancock	Maj. J. C. Dent, 24th Inf.	40 civ. employees, 375 horses and 40 mules.	2		
			B. D. M. 24th Inf., A. C. D. G. 25th Inf., and det.	15	903	
	Total			1,207	33,874	

a Sent to China; place of arrival, Taku.

Transports sailed from San Francisco unless otherwise indicated.

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 1, 1900.

H. C. CORBIN
Adjutant-General, U. S. A.

42 REPORT OF LIEUT. GENERAL COMMANDING THE ARMY.

I.—Casualties in actions of troops serving in China between July 1, 1900, and October 1, 1900.

Organization.	Killed.		Wounded.		Total.		Aggregate.
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	
Hospital Corps				1		1	1
Sixth U S Cavalry				6		6	6
Fifth U S Artillery	1			3	1	3	4
Ninth U S. Infantry	1	19	7	81	8	100	108
Fourteenth U. S. Infantry		11		79		90	90
Total	2	30	7	170	9	200	209

H. C. CORBIN.
Adjutant-General, U. S. A.

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 1, 1900.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1899.							
Feb. 4	Manila	1st Colo.; 20th Kans.; 1st Nebr.; C, F, H, I, K, L, M, 1st Mont.; D, E, H, K, 10th Pa.; A, F, G, H, I, K, L, M, 1st S. Dak.; Utah Art.; G, H, K, L, 3d Art.		1	1	5	1st Lieut. C. S. Haughwout, 1st Colo., wounded.
Feb. 5	Chinese hospital	C, F, G, H, I, K, L, 1st Mont.; C, D, E, H, I, K, 10th Pa.; G, H, K, L, 3d Art.				6	
Do.	La Loma church	20th Kans.; 1st S. Dak.; C, D, E, H, I, K, 10th Pa.; B, Utah Art.; G, H, K, L, 3d Art.		10	2	39	Maj. Everhart Bierer, 10th Pa., and 2d Lieut. R. S. Abernethy, 3d Art., wounded.
Do.	Passy	C, E, G, K, L, 4th Cav.; A, C, D, E, F, G, I, K, L, M, 14th Inf.; B, C, D, G, H, K, 1st N. Dak.; A, C, E, F, 1st Tenn.		10	1	34	1st Lieut. James Mitchell, 14th Inf., wounded.
Do.	San Juan Hill	1st Nebr.; D, I, 1st Colo.; B, D, L, M, 1st Tenn.; A, B, Utah Art.		4		16	
Do.	Santa Ana	1st Cal.; 1st Idaho; 1st Wash.; 1st Wyo.; D, 6th Art.	1	14	4	73	Maj. Edward McConville, 1st Idaho, killed; Capt. Albert H. Otis, 1st Lieut. Edward K. Erwin, 2d Lieut. Joe Smith, 1st Wash., and 1st Lieut. Chas. J. Hogan, 1st Cal., wounded.
Do.	Santa Mesa	B, E, F, G, K, L, 1st Colo.; A, Utah Art.		4		5	
Do.	Singalon	I, 4th Cav.; I, 1st N. Dak.				2	
Feb. 6	Pumping station	1st Nebr.; D, I, 1st Colo.; C, G, K, 2d Oreg.; B, D, L, M, 1st Tenn.; B, I, K, M, 23d Inf.; A, Utah Art.		2			
Do.	San Pedro Macati	1st Idaho; 1st Cal.				2	
Do.	Santa Ana	1st Idaho; 1st Wash.				1	
Feb. 7	Caloocan	1st Mont.				8	1st Lieut. A. C. Alvord, 20th Kans., killed.
Do.	Near Manila	1st Cal.; B, C, E, I, 20th Kans.; G, H, K, L, 3d Art.	1	2			
Do.	Mariquina	B, I, K, M, 23d Inf.; 1st Nebr.; 2d Oreg.				2	
Feb. 9	Near Manila	G, 1st N. Dak.; C, H, 1st Cal.					
Do.	Pateros	1st Wash.; C, H, 1st Cal.				4	
Do.	San Roque	B, C, E, G, I, K, L, M, 51st Iowa; A, D, Cal. Art.; A, Nev. Cav.		5		41	Lieut. Col. R. B. Wallace, Capt. W. L. Hill, 2d Lieut. W. C. Gardenshire, 1st Mont., and Capt. C. M. Christy, 20th Kans., wounded.
Feb. 10	Caloocan	C, E, G, 4th Cav.; B, I, K, M, 23d Inf.; 1st Idaho; 20th Kans.; 13th Minn.; A, B, D, F, G, I, K, L, M, 1st Mont.; A, B, Utah Art.; D, 6th Art.; G, H, K, L, 3d Art.				6	
Feb. 11	do	20th Kans.; D, 13th Minn.				1	
Do.	Iloilo	G, 6th Art.; 2d Battn., 18th Inf.; 1st Battn., 1st Tenn.				3	Capt. T. R. Hamer, 1st Idaho, wounded.
Do.	Malabon	1st Idaho				1	
Do.	Near Manila	C, F, 14th Inf.; B, Utah Art.				8	
Feb. 12	Paranaque	K, L, 4th Cav.				2	
Do.	Caloocan	1st Mont., 20th Kans.				1	2d Lieut. F. C. Bolles, 18th Inf., wounded.
Do.	Jaro	1st Tenn.; A, B, C, E, H, I, K, L, 18th Inf.; G, 6th Art.				2	
Do.	Malabon	1st Idaho				1	
Feb. 13	Caloocan	20th Kans.				2	
Do.	Guadalupe	D, G, L, M, 1st Cal.; A, B, Utah Art.				1	2d Lieut. G. A. Seaman, Utah Art., wounded.
Do.	Jolo bridge	B, D, L, M, 1st Tenn.; det. 18th Inf.; G, 6th Art.				1	
Feb. 14	Jaro	A, 18th Inf.		1			

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Offi- cers.	Men.	Offi- cers.	Men.	
1899.							
Feb. 14	Pateros.....	C, H, 1st Cal.; 1st Wash.				7	
Do.	San Pedro Macati	1st Wash.				1	
Feb. 15	Guadalupe	1st Idaho, Utah Art.					
Do.	Mariquina.....	H, 1st Nebr.				1	
Do.	Jolo.....	B, L, 1st Tenn.; G, 6th Art.				1	
Do.	Paranaque	L, K, 4th Cav.				1	
Do.	Pateros.....	C, D, F, H, 1st Cal.				1	
Do.	San Pedro Macati	1st Wash.				1	
Feb. 16	Near Pateros	C, D, F, I, 1st Cal.				1	
Do.	San Pedro Macati	1st Wash.				1	
Feb. 17	Caloccan	G, I, L, M, 1st Cal.				1	
Do.	Guadalupe	A, C, E, F, G, I, 1st Nebr.			2	6	Capt. A. H. Hollingsworth and 2d Lieut. B. D. Wheadon, 1st Nebr., wounded.
Do.	Mariquina road						
Feb. 19	AraVilla.....	A, B, D, F, L, M, 1st Tenn.; G, 6th Art.					
Do.	San Pedro Macati	1st Wash.				1	
Feb. 20	Guadalupe church	K, M, 1st Wash.		2			
Do.	San Pedro Macati	L, M, 1st Cal.				5	
Feb. 21	do.	K, 1st Cal.		1		1	
Feb. 22	Guadalupe church	E, H, 1st Wash.; H, 2d Oreg.		2		4	
Do.	Pumping station	1st Wyo.; D, F, H, K, L, 1st Nebr.				3	
Do.	Santalón	do.					
Do.	Tondo	A, E, M, 2d Oreg.; C, D, G, L, M, 13th Minn.		3		8	
Feb. 23	Caloccan	G, H, K, L, 3d Art.; A, Utah Art.; 1st Colo.; 20th Kans.; 1st Mont.; 10th Pa.	1	3	1	23	2d Lieut. E. S. French, 1st Mont., killed; 2d Lieut. Philip Greenan 1st Mont., wounded.
Do.	Tondo	G, K, M, 23d Inf.; C, M, 13th Minn.; L, 1st Mont.; E, M, 2d Oreg.		1	1	9	Capt. Noyes C. Robinson, 13th Minn., wounded.
Feb. 24	Cruznañigas	G, H, K, L, 3d Art.; 20th Kans.; 1st Mont.			1	5	1st Lieut. W. A. Callahan, 20th Kans., wounded.
Do.	La Paz	A, Utah Art.; C, G, K, 2d Oreg.; A, 1st Nebr.				1	
Do.	San Pedro Macati	G, H, I, K, 1st Tenn.; G, 6th Art.					
Feb. 25	Caloccan	C, D, F, H, 1st Idaho.				1	
Do.	Mandurao	20th Kans.				1	
Feb. 26	Caloccan	G, H, I, K, 1st Tenn.; G, 6th Art.				4	
Feb. 27	Near Caloccan	H, 13th Minn.; 20th Kans.; 1st Mont.; 10th Pa.				2	
Do.	San Pedro Macati	1st Cal.				2	
Feb. 28	Caloccan	1st Cal.				3	
Do.	San Pedro Macati	K, F, 1st Cal.	1			1	Capt. D. S. Elliott, 20th Kans., killed.
Mar. 1	Jaro	A, B, C, E, H, I, K, L, 18th Inf.; G, 6th Art.				2	
Mar. 2	Caloccan	1st Mont.				1	
Do.	San Roque	A, Cal. Art.; Wyo. Lt. Batty, det. 51st Iowa.				1	
Mar. 8	La Paz	1st Tenn.; G, 6th Art.				1	
Do.	San Pedro Macati	1st Wash.; A, B, Utah Art.				3	

Mar. 4	Laguna de Bay	G, 3d Art.	1	1	1	1
Do.	San Pedro Macati	E, L, 23d Inf.; G, L, 1st Cal	1	1	1	3
Mar. 5	Mariquina road	B, E, H, 1st Nebr.; C, E, G, K, 2d Oreg	1	1	1	5
Do.	Manila	Hospital Corps	1	1	1	2
Do.	Mariquina road	A, Utah Art.; A, D, F, I, 1st Nebr.; C, E, G, K, 2d Oreg	1	1	1	6
Do.	Pumping station	A, Utah Art.; K, L, M, 1st Nebr.; Hosp. Corps	1	1	1	2
Do.	San Pedro Macati	1st Wash.; D, 6th Art.	2	2	2	6
Mar. 7	Pumping station	A, Utah Art.; A, H, I, M, 20th Inf.; B, E, G, H, I, K, M, 1st Nebr.; 1st Wyo.	1	1	1	1
Do.	San Pedro Macati	1st Wash.	1	1	1	1
Do.	San Juan del Monte	1st Wyo.; A, Utah Art.	1	1	1	1
Mar. 10	Calococan	20th Kans.	1	1	1	1
Do.	San Pedro Macati	C, D, F, H, 1st Idaho.	1	1	1	1
Mar. 11	do	B, C, H, L, 2d Inf.	1	1	1	1
Mar. 12	Calococan	C, 20th Kans.	1	1	1	1
Do.	San Pedro Macati	A, B, C, D, E, G, K, M, 2d Oreg	1	1	1	1
Do.	Calococan	A, B, C, D, E, G, K, M, 2d Oreg	1	1	1	1
Mar. 13	Guadalupe church	E, I, K, 4th Cav.; D, 6th Art.; A, Utah Art.; 20th Inf.; A, B, D, E, G, I, L, M, 2d Oreg.; C, D, E, G, H, K, L, M, 1st Wash.; 2d Inf.	3	3	3	20
Mar. 14	Guadalupe	A, B, Utah Art.; D, K, 20th Inf.; E, I, 2d Oreg	1	1	1	4
Do.	Pasig	A, B, Utah Art.; A, B, C, E, G, I, L, M, 2d Oreg	1	1	1	4
Do.	Pateros	E, I, K, 4th Cav.; D, 6th Art.; C, D, E, L, 1st Wash	1	1	1	1
Mar. 15	Calococan	1st Mont.	1	1	1	1
Do.	Pasig	E, I, K, 4th Cav.; D, 6th Art.; A, B, Utah Art.; 20th Inf.; B, D, E, I, L, M, 2d Oreg	1	1	1	3
Do.	Taguig	D, E, G, K, L, 1st Wash.; D, 6th Art.	1	1	1	13
Mar. 16	Calua	C, D, E, G, K, L, 1st Wash.; D, 6th Art.	2	2	2	15
Do.	Jaro bridge	C, F, G, L, 20th Inf.	1	1	1	1
Do.	Mariquina	G, 6th Art.; A, B, C, E, H, I, K, L, 18th Inf.; L, 1st Cal.; B, C, L, M, 1st Tenn.	1	1	1	3
Do.	San Pedro Macati	B, I, K, 1st Colo	1	1	1	1
Mar. 17	La Loma church	C, D, F, H, 1st Idaho	1	1	1	1
Mar. 18	Taguig	Det. 10th Pa.; A, Utah Art.	3	3	3	16
Mar. 19	Laguna de Bay	G, H, 1st Wash.; D, E, G, M, 2d Inf	1	1	1	1
Do.	Taguig	2d Oreg	1	1	1	5
Mar. 20	Binangonan	C, D, H, K, M, 1st Wash.; D, E, G, M, 2d Inf	1	1	1	1
Mar. 21	Mariquina road	A, Utah Art.	1	1	1	1
Mar. 22	Calococan	E, 1st Colo	1	1	1	1
Mar. 23	do	20th Kans	1	1	1	1
Mar. 24	do	do	1	1	1	1
Mar. 25	Bacra	E, I, K, 4th Cav	1	1	1	1
Do.	Bonloc	Hqrs. 3d Brig. 2d Div. 8th A. C. and scouts	2	2	2	27
Do.	Calococan	22d Inf.; 20th Kans; Hospital Corps	1	1	1	1
Do.	La Loma church	E, I, K, 4th Cav.; G, H, K, L, 3d Art.; A, Utah Art., 1st Mont.	8	8	8	50
Do.	Malabon	E, I, K, 4th Cav.; E, F, G, M, 3d Inf.; 22d Inf.; 1st Mont.; 2d Oreg.; Hosp. Corps	11	11	11	56
Do.	Mariquina road	4th Inf.; 13th Minn.; A, E, M, 1st Colo.; A, Utah Art.	1	1	1	17
Do.	San Francisco del Monte	G, H, K, L, 3d Art.; D, 6th Art.; A, B, Utah Art.; 20th Kans; 1st Nebr.; 10th Pa.; 1st S. Dak.	2	2	2	19
Mar. 26	Calococan	G, 13th Minn	1	1	1	1

Capt. Claude H. Ough, 1st Nebr., and Capt. J. D. O'Brien, 1st Wyo., wounded.

Capt. Edward Smith, 1st Idaho, wounded.

Capt. Fred. Wheeler, 4th Cav., wounded.

Maj. C. H. Anderson, 1st Colo., wounded.

Capt. F. B. Jones, 22d Inf., wounded.

Capt. C. D. Clay, 17th Inf., A. A. G., wounded.
 Capt. A. G. Clark, 20th Kans., and Lieut. H. L. Jackson, 22d Inf., wounded.
 2d Lieut. W. S. Overton, 3d Art., and 2d Lieut. Myles Kelly, 1st Mont., wounded.
 Capt. H. L. Wells and 1st Lieut. A. J. Brazee, 2d Oreg., wounded.
 Capt. J. S. Stewart, 1st Colo., killed.
 Capt. Lee Forby, Capt. W. C. Taylor, 1st Lieut. J. A. Storch, 1st Nebr., wounded.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1899.							
Mar. 26	Malabon.....	A 1st Idaho.....					Col. H. C. Egbert, 22d Inf., killed.
Do....	Melinto.....	G. H. K. L. 3d Art.; B. D. E. L. 23d Inf.; 2d Oreg. N. 3d Cav.; D. 6th Art.; 20th Kans.; 1st Mont.; 1st Nebr.; 10th Pa.; 1st S. Dak.	1	2			1st Lieut. N. G. Kravenbuhl, 3d Art., killed; Brig. Gen. Irving Hule, U. S. V., Maj. Surg. F. J. Adams, 1st Mont., and Capt. C. H. Englesby, 1st S. Dak., wounded.
Do....	Meycauayan.....		1	2	3		Capt. G. H. Fortson, 1st Wash., killed; Capt. C. W. Jones, 10th Pa., and 2d Lieut. L. Eng- land, 3d Art., wounded.
Mar. 27	Paig.....	1st Wash.; A. Utah Art.	1	1			
Mar. 27	Maricao River.....	E. I. K. 4th Cav.; G. H. K. L. 3d Art.; D. 6th Art.; A. B. Utah Art.; H. 1st Colo.; 22d Inf.; 20th Kans.; 1st Mont.; 1st Nebr.; 10th Pa.		5	2		
Mar. 28	Maricao.....	1st Nebr., 10th Pa., 1st S. Dak.	3	6	1		2d Lieut. J. H. Lien, 1st Lieut. F. H. Adams and 2d Lieut. S. E. Morrison, 1st S. Dak., killed; Lieut. P. D. McClelland, 1st S. Dak., wounded; Maj. W. S. Metcalf, Capt. W. J. Watson, 20th Kans., and 1st Lieut. F. L. Perry, 1st Colo., wounded.
Mar. 29	Guiguinto.....	E. I. K. 4th Cav.; G. H. L. 3d Art.; D. 6th Art.; B. Utah Art.; 22d Inf.; 20th Kans.; 1st Mont.; 1st Nebr.; 1st Colo.					Col. A. L. Hawkins and 1st Lieut. Blaine Alken, 10th Pa., wounded.
Do....	Melinto.....	2d Oreg., 10th Pa., 1st S. Dak.		4			
Mar. 30	Malolos.....	E. I. K. 4th Cav.; G. H. K. L. 3d Art.; D. 6th Art.; Utah Art.; B. 3d Inf.; 22d Inf.; 23d Inf.; 20th Kans.; 1st Mont.; 1st Nebr.; 10th Pa.; 1st S. Dak.					
Do....	Marquina road.....	E. I. K. 4th Cav.; G. H. K. L. 3d Art.; D. 6th Art.; Utah Art.; 3d Inf.; A. B. F. G. H. I. K. M. 22d Inf.; 23d Inf.; 20th Kans.; 1st Mont.; 1st Nebr.; 10th Pa.; 1st S. Dak.		1	1		2d Lieut. C. B. Humphrey, 3d Inf., wounded.
Mar. 31	Malolos.....	Utah Art.; 4th Inf.; C. D. E. L. 23d Inf.; C. D. E. G. 1st Colo. A. Utah Art.					
Do....	Marquina Valley.....	Utah Art.; 4th Inf.; C. D. E. L. 23d Inf.; C. D. E. G. 1st Colo. A. Utah Art.	1				1st Lieut. J. C. Gregg, 4th Inf., killed.
Do....	Taytay.....	A. Utah Art.					
Apr. 1	Melinto.....	C. G. K. 2d Oreg.					
Do....	San Nicolas.....	A. D. 1st N. Dak.			1		
Apr. 4	Calumpit.....	1st Mont.					
Do....	Near Malolos.....	do		1			
Apr. 7	Santa Maria.....	L. 2d Oreg.; B. Utah Art.					
Apr. 7	Malolos.....	20th Kans.					
Do....	Santa Cruz.....	C. G. L. 4th Cav.; D. 6th Art.; A. C. D. E. G. I. K. L. 14th Inf.; A. C. D. F. 1st Idaho; C. D. I. K. 1st N. Dak.; det. 1st Wash. D. H. 1st Wash.			1		2d Lieut. D. Baldwin, Jr., 1st N. Dak., wounded.
Do....	Taguig.....	Hospital Corps					
Apr. 10	Binan.....	13th Minn.					
Do....	Guiguinto.....	C. G. L. 4th Cav.; D. 6th Art.; A. C. D. E. G. I. K. L. 14th Inf.; C. D. I. K. 1st N. Dak.; det. 1st Idaho and 1st Wash.		1			1st Lieut. E. E. Southern, 1st Wash., wounded.
Do....	Pae'e.....	C. G. L. 4th Cav.; 14th Inf.					
Do....	Santa Cruz.....	13th Minn.					
Apr. 11	Guiguinto.....	A. L. M. 2d Oreg.					
Do....	Maricao.....		1	3	1	2	2d Lieut. LeRoy Ettinger, 4th Cav., wounded. 1st Lieut. C. N. Clark, 18th Minn., wounded.

Do.	Pagsanjan.....	C, D, G, I, K, 1st N. Dak.; B, Utah Art.			1
Do.	San Pedro Macati.....	H, 1st N. Dak.			2
Do.	Santa Cruz.....	14th Inf.			2
Apr. 12	Paele.....	C, D, I, K, 1st N. Dak.	5		1
Do.	Santa Maria.....	13th Minn.; A, B, C, D, E, F, I, K, L, 2d Oreg.			5
Apr. 18	Malolos.....	G, H, K, L, 3d Art.; B, 1st Mont.	2		1
Apr. 15	Maricao.....	2d Oreg.			1
Apr. 20	Guilguinto.....	A, 13th Minn.; D, H, 1st Wash.			4
Apr. 20	Near Guilguinto.....	F, 13th Minn.			1
Apr. 21	Nevaliches.....	C, G, L, 4th Cav.; D, 6th Art.; Utah Art.; A, C, F, G, H, K, L, M, 3d Inf.; 2d Inf.; 1st N. Dak.			1
Do.	San Bartolome.....	1st N. Dak.			1
Apr. 23	Quingua.....	I, K, 4th Cav.; D, E, G, I, K, L, 51st Iowa; 1st Nebr.	2	5	2
Do.					43
Apr. 24	Bagbag River.....	20th Kans.; 1st Mont.; 1st Nebr.; Hosp. Corps.			
Do.	Lagundi.....	20th Kans.; 1st Mont.; 1st Nebr.; 1st S. Dak.	1		1
Do.	Norzagarray.....	I, 4th Cav.; B, Utah Art.; C, D, E, G, H, K, L, M, 13th Minn.; A, B, F, G, I, K, L, 2d Oreg.			3
Do.	Pulilan.....	E, K, 4th Cav.; A, Utah Art.; 51st Iowa; 1st Nebr.; 1st S. Dak.	5	3	12
Apr. 25	Angat.....	B, Utah Art.; 1st N. Dak.; C, D, E, G, H, K, L, M, 13th Minn.; A, B, C, D, E, G, I, K, L, M, 2d Oreg.			1
Do.	Bagbag River.....	A, B, Utah Art.; 20th Kans.; 1st Mont.			5
Do.	Calumpit.....	E, K, 4th Cav.; D, 6th Art.; B, Utah Art.; 51st Iowa; 1st Nebr.; 1st S. Dak.; Hosp. Corps.	5	2	32
Do.	Norzagarray.....	I, 4th Cav.; B, Utah Art.; C, D, E, G, H, K, L, M, 13th Minn.; A, B, F, G, I, K, L, 2d Oreg.			1
Apr. 26	Angat.....	13th Minn.; 1st N. Dak.; B, F, K, M, 2d Oreg.			1
Do.	Near Calumpit.....	A, B, Utah Art.; 20th Kans.; 1st Mont.; Hosp. Corps.	4	1	10
Do.	Calumpit.....	1st Nebr.			1
Apr. 27	Apalit.....	A, B, Utah Art.; 20th Kans.; 1st Mont.	1	3	10
Do.	Marunco.....	Det. 13th Minn.			
Do.	Pampanga River.....	A, Utah Art.			1
Do.	Taguig.....	D, F, G, H, L, 1st Wash.			14
Apr. 29	San Rafael.....	C, G, L, 4th Cav.; D, 6th Art.; A, B, Utah Art.; A, C, F, G, H, K, L, M, 3d Inf.; C, D, E, G, H, K, L, M, 13th Minn.; A, B, F, G, I, K, L, 2d Oreg.; 1st N. Dak.	2	1	3
May 1	co.....	C, G, I, K, L, 4th Cav.; D, 6th Art.; B, Utah Art.; A, C, F, G, H, K, L, M, 3d Inf.; C, D, E, G, H, K, L, M, 13th Minn.; A, B, C, F, G, I, K, L, M, 2d Oreg.; 1st N. Dak.; 2d Inf.	1		4
May 2	Baliuag.....	C, G, I, K, L, 4th Cav.; G, H, K, L, 3d Art.; D, 6th Art.; B, Utah Art.; A, C, F, G, H, K, L, M, 3d Inf.; 2d Inf.; 13th Minn.; 1st N. Dak.; A, B, F, G, I, K, L, 2d Oreg.			2
Do.	Bustos.....	D, 6th Art.; 2d Inf.; 1st N. Dak.; A, P, F, G, H, I, K, L, 2d Oreg.			1
Do.	Pullilan.....	E, 4th Cav.			1

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Offi- cers.	Men.	Offi- cers.	Men.	
1899							
May 4	Maasin	C, G, I, L, 4th Cav.; G, H, K, L, 3d Art.; D, 6th Art.; Utah Art.; A, C, F, G, H, K, L, M, 3d Inf.; C, D, E, G, H, K, L, 13th Minn.; 2d Oreg.			1	2	Capt. H. L. Heath, 2d Oreg., wounded.
Do...	Santo Tomas	G, H, K, L, 3d Art.; B, Utah Art.; 51st Iowa; 20th Kans.; 1st Mont.; 1st Nebr.; 1st S. Dak.	1	4	3	22	2d Lieut. W. A. Taggart, 20th Kans., killed. Col. F. Funston, Capt. W. S. Albright, 20th Kans., and Capt. T. S. Dillon, 1st Mont., wounded.
May 5	San Fernando	51st Iowa				1	
Do...	San Miguel	A, B, I, L, 2d Oreg.					
May 8	Maasin	K, 13th Minn.			1		
Do...	San Fernando	B, C, D, H, I, M, 20th Kans.; 1st Mont.				1	
Do...	San Idelfonso	K, 13th Minn.; F, 2d Oreg.				1	
May 10	Santa Cruz	A, Utah Art.					
May 12	San Idelfonso	H, 13th Minn.; F, G, K, 2d Oreg.; 1st N. Dak.				1	
May 13	San Miguel	H, 13th Minn.				1	
May 14	Mariguina Road	E, 21st Inf.				1	
Do...	San Luis	A, B, Utah Art.					
May 15	Salacot	13th Minn.				1	
May 16	Near San Isidro	C, D, E, G, H, K, L, M, 2d Oreg.					
May 17	San Isidro	C, G, I, L, 4th Cav.; D, 6th Art.; B, Utah Art.; A, C, F, G, H, K, L, M, 3d Inf.; A, B, C, F, H, I, K, L, 2d Inf.; C, D, E, G, H, K, L, M, 13th Minn.; A, B, F, G, I, K, L, 2d Oreg.; 1st N. Dak.				2	
Do...	San Luis	E, 1st Art.; G, 3d Art.; A, D, H, I, 9th Inf.; 17th Inf.				1	
May 18	Cabiao	1st N. Dak.					
Do...	San Fernando	D, 6th Art.; 1st N. Dak.; A, B, C, F, H, I, K, L, 2d Inf.				6	
May 19	Cabiao	A, B, C, F, H, I, K, L, 2d Inf.					
Do...	Near Taguig	A, D, F, H, I, 1st Wash.					
May 20	San Antonio	13th Minn.; det. 2d Oreg.					
Do...	Cavite	D, Cal. Art.				1	
May 21	Angat	13th Minn.					
May 22	San Pedro Macati	G, 1st Idaho				1	
May 23	Maasin	A, C, E, F, G, H, I, K, L, M, 3d Inf.					
Do...	Mariguina	C, 1st Colo.				1	
Do...	San Fernando	E, 4th Cav.; B, Utah Art.					
Do...	San Idelfonso	A, C, E, F, G, H, I, K, L, M, 3d Inf.				13	1st Lieut. J. C. McArthur, 3d Inf., wounded.
Do...	Santa Rita	E, K, 4th Cav.; A, Utah Art.			2	8	
May 24	San Fernando	G, H, K, L, 3d Art.; B, Utah Art.; A, B, E, G, K, L, M, 20th Kans.; 1st Mont.			1	10	2d Lieut. R. S. Parker, 20th Kans., wounded.
May 25	do	A, B, Utah Art.; 17th Inf.; 51st Iowa; 20th Kans.; 1st S. Dak.				7	
Do...	Santa Rita	D, H, I, 20th Kans.; 1st Mont.					
May 26	Near Baliuag	C, 3d Inf.				2	
Do...	San Fernando	51st Iowa; 1st S. Dak.; B, F, L, 20th Kans.				1	
May 27	Escalante	19th Vol. Signal Co.	1				Capt. G. H. Tilly, U. S. V. Sig. Corps, killed.

May 29	Sagay.....	M, 18th Inf							
May 31	San Fernando.....	51st Iowa							3
June 3	Antipolo.....	C, G, I, L, 4th Cav				2			4
Do.	Calinta.....	A, Utah Art.; E, G, H, I, 12th Inf.; A, B, C, D,							
Do.	Mariquina.....	G, I, K, L, M, 1st Wash.; 1st N. Dak.							
Do.	Morong.....	4th Inf.; 2d Oreg.; A, C, F, G, K, L, 1st Colo				1			5
Do.	Pumping station.....	E, 1st Art.; E, G, H, 9th Inf.							
Do.	San Fernando.....	C, G, I, L, 4th Cav.; 2d Oreg.							1
Do.	Taytay.....	C, 1st Mont.							
June 4	Antipolo.....	1st N. Dak.; E, G, H, 9th Inf.; A, B, C, D,				2			
Do.	Morong.....	G, I, K, L, M, 1st Wash.							1
Do.	Near Pasay.....	E, 1st Art.; A, Utah Art.; E, G, H, 9th Inf.; A, B, C, D, G, I, K,							
Do.	Morong.....	L, M, 1st Wash.; 2d Oreg.							1
June 6	Morong.....	A, E, 4th Inf							
June 6	Near Pasay.....	A, B, C, D, G, I, K, L, M, 1st Wash				1			1
Do.	Near Pasay.....	do.							
June 9	Guadalupe.....	B, D, E, F, I, M, 1st Colo							1
Do.	Morong.....	H, 1st N. Dak.							
Do.	Bacolor.....	D, L, 1st Mont.				1			2
Do.	Guadalupe.....	B, C, D, E, I, K, L, M, 9th Inf.; 13th Inf.; A, D, E, F, G, I, K, L,							17
Do.	Las Pinas.....	M, 14th Inf.; B, D, E, F, I, M, 1st Colo.				1			10
Do.	Paranaque.....	I, 4th Cav.; 9th Inf.; 12th Inf.; 14th Inf.							3
June 13	Bacoor.....	B, C, D, F, H, I, K, L, 21st Inf.				2			11
Do.	Zapote River.....	do.							
Do.		E, 1st Art.; D, 6th Art.; B, C, D, E, I, K, L, M, 9th Inf.; L, M,				8			34
Do.		12th Inf.; 14th Inf.; 21st Inf.; A, 51st Iowa.							
June 15	Rosario.....	A, D, Cal. Art							1
June 16	Morong.....	H, 1st N. Dak.							
Do.	Novaleta.....	A, D, 1st Cav.; A, B, C, K, 10th Pa							13
Do.	San Fernando.....	A, B, Utah Art.; 17th Inf.; 51st Iowa; 20th Kans.; 1st Mont.				1			16
June 19	Dasmariñas.....	4th Inf				2			5
Do.	Imus.....	do.							2
June 20	Dasmariñas.....	4th Inf.; det. 9th Inf.; A, D, E, F, I, L, 14th Inf.							
June 21	Bacoor.....	A, B, C, K, 10th Pa.							2
June 22	San Fernando.....	A, Utah Art.; H, 9th Inf.; 17th Inf.; 20th Kans							
June 26	Muntinlupa.....	C, G, L, 4th Cav				1			3
June 30	San Fernando.....	17th Inf.; 51st Iowa; F, 12th Inf.				1			1
July 1	Bulung.....	Det. E, 1st Cal.				1			1
July 4	San Fernando.....	17th Inf.; 51st Iowa.							2
July 5	Pitilla.....	C, G, L, 4th Cav							
July 11	Near Muntinlupa.....	do.							1
Do.	San Fernando.....	17th Inf.							
July 12	Near Ballung.....	K, 4th Cav							
Do.	Teresa.....	21st Inf							
July 17	Mavilac.....	C, 21st Inf.							1
July 19	Bombong.....	Det. H, K, M, 6th Inf.				1			1
Do.	Canlaon.....	Det. 6th Inf.							
Do.	Near San Luis.....	K, 9th Inf.				1			

Lieut. Col. C. M. Moses, 1st Colo., wounded.
 1st Lieut. H. G. Learnard, 14th Inf., wounded.
 Lieut. Patrick A. Connolly and Lieut. J. L. Donovan, 21st Inf., wounded.
 Lieut. J. P. Harberson, 12th Inf.; Lieut. M. C. Keith, 23d Inf., and Lieut. H. S. Avery, 14th Inf., wounded.

1st Lieut. I. L. Reeves, 17th Inf., wounded.

K.—*Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.*

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1899.							
July 20	Near Tolon.....	F, G, 6th Inf.					
July 24	Acan.....	Det. K, 23d Inf.		1			
July 26	Calamba.....	C, G, L, 4th Cav.; C, D, E, H, I, K, 21st Inf.; C, D, F, H, I, K, 1st Wash.; E, 1st Art.		4		12	
July 27	do.....	do				3	
Do	Valdez.....	E, 6th Inf.					
Do	Bacolor.....	L, 3d Art.				1	
July 28	Near Balinguag.....	K, 4th Cav.					
Do	Calamba.....	C, G, L, 4th Cav.; C, D, E, H, I, K, 21st Inf.; C, D, F, H, I, K, 1st Wash.; E, 1st Art.					
July 29	do.....	do					
July 30	do.....	do					
Do	Silay.....	Det. K, 6th Inf.		2	1	5	2d Lieut. J. M. Love, Jr., 21st Inf., wounded.
Aug. 9	Bacolor.....	38th Inf.		2	2	5	Maj. J. Q. A. Braden and Capt. R. S. Abernethy, 38th Inf., wounded.
Do	Calulut.....	G, 3d Art.; E, 1st Art.; 17th Inf.; B, C, H, L, 22d Inf.; A, B, C, D, E, G, H, I, L, M, 51st Iowa.		1	1	17	2d Lieut. L. A. Williams, 51st Iowa, wounded.
Do	Sindalon.....	9th Inf.; 12th Inf.		3		9	
Do	Near Calulut.....	Det. 51st Iowa					
Aug. 10	Porac.....	A, B, D, F, 12th Inf.					
Do	Near Angeles.....	C, E, F, M, 17th Inf.; E, 1st Art.				1	
Do	Santa Rita.....	C, D, G, H, 36th Inf.					
Aug. 11	Near Angeles.....	Det. 31st Iowa				1	
Do	Near Novaleta.....	Det. 4th Inf.		1			
Aug. 12	San Luis.....	D, M, 22d Inf.		1		1	
Do	Santa Rita.....	B, C, E, I, 9th Inf.				2	
Do	San Mateo.....	A, B, F, 4th Cav.; B, E, G, L, 21st Inf.; E, G, 24th Inf.; F, H, L, 25th Inf.		4	1	13	2d Lieut. M. M. Weeks, 21st Inf., wounded.
Aug. 13	Near Angeles.....	A, B, G, I, 17th Inf.; E, 1st Art.					
Do	Near Quingua.....	B, D, 3d Inf.				1	
Aug. 14	do.....	K, 4th Cav.; G, 3d Art.; C, E, F, G, 3d Inf.		1			
Aug. 15	Near La Paz.....	E, F, G, I, 1st Tenn.					
Do	Near Bacolor.....	Det. A, K, L, M, 36th Inf.					
Aug. 16	Guagua.....	E and deta. A, K, L, M, 36th Inf.					
Do	Dolores.....	K, 12th Inf.					
Do	Angeles.....	E, 1st Art.; B, C, D, E, F, G, H, I, L, M, 12th Inf.		3	1	13	1st Lieut. W. H. Williams, 12th Inf., wounded.
Aug. 17	Near Porac.....	Det. 4th Cav.					
Do	Angeles.....	E, 1st Art.; B, 12th Inf.					
Aug. 18	do.....	E, 1st Art.; det. 12th Inf.; B, Engrs				2	
Do	Near Tabuan.....	M, 6th Inf.				2	
Aug. 19	do.....	Deta. B, M, 6th Inf.				3	

Do...	Near Angeles.	E, 1st Art.; E, G, H, I, 12th Inf.	1	1	1	1st Lieut. A. W. Drew, 12th Inf., killed; 1st Lieut. W. Ulline, 12th Inf., wounded.
Aug. 23	El Pardo	Det. M, 23d Inf.	1	1	1	1st Lieut. H. S. Howland, 23d Inf., wounded.
Aug. 24	Near Cebu	4 men, Co. M, 23d Inf.	3	1	1	
Aug. 30	Argogula	H and det. K, 6th Inf.	1	1	1	
Sept. 1	Dolores	D, E, 17th Inf.	1	1	1	
Sept. 3	Near Porac	Det. A, 38th Inf.	1	1	1	
Sept. 9	Near Imus	F, 6th Art.	1	1	1	
Do.	Near Porac	38th Inf.	1	1	1	
Do.	Near Arayat	C, F, 17th Inf.	1	1	1	
Sept. 11	Near Calulut	B, I, 17th Inf.	1	1	1	
Sept. 13	Acan Valley	K, 23d Inf.	1	1	1	
Sept. 15	Near Calamba	Det. E, 21st Inf.	1	1	1	
Do.	Guagua	Det. L, 36th Inf.	1	1	1	
Do.	Near La Paz	E, F, 1st Tenn.	1	1	1	
Sept. 16	Isabela	L, 6th Inf.	1	1	1	
Sept. 17	Near Moalboal	Dets. A, C, 6th Inf.; A, 23d Inf.; H, 1st Tenn.	1	1	1	
Sept. 19	Casabon	Det. F, 17th Inf.	1	1	1	
Sept. 22	Near Cebu	G, 6th Art.; Dets. A, C, 6th Inf.; H, I, K, M, 19th Inf.; Dets. A, I, K, 23d Inf.; B, D, E, F, G, I, L, M, 1st Tenn.	1	1	1	
Do.	Gondos	G, M, 17th Inf.	1	1	1	
Sept. 23	Near Angeles	Love's Scouts; Hosp. Corps; employees Q. M. Dept.	1	1	1	Capt. A. W. Perry (9th Cav.), A. Q. M. Vols., wounded.
Do.	Near Cebu	K, 23d Inf.	1	1	1	
Sept. 27	Near Mexico	Dets. F, K, 24th Inf.	1	1	1	
Sept. 28	Porac	E, 4th Cav.; K, 3d Art.; 9th Inf.; 36th Inf.	1	1	1	
Do.	Near Porac	A, H, K, L, 17th Inf.	1	1	1	
Sept. 29	Near Imus	B, D, K, L, 4th Inf.; F, 6th Art.	1	1	1	
Do.	Near Los Banos	A, 21st Inf.	1	1	1	
Sept. 30	Imus	4th Inf.	1	1	1	
Oct. 1	Near Tabuan	Det. 6th Inf.; Hosp. Corps	1	1	1	Lieut. Haydon Y. Grubbs, 6th Inf., killed; Capt. P. Shillock, asst. surg., wounded.
Do.	Near Arayat	I, G, 22d Inf.	1	1	1	
Oct. 2	Near Imus	F, 6th Art.; E, Sig. Corps; B, E, H, 14th Inf.; A, D, I, 4th Inf.	1	1	1	
Oct. 3	do	F, 6th Art.; B, K, G, 4th Inf.; E, H, I, 14th Inf.	1	1	1	
Do.	Near Santa Ana	B, 4th Cav.	1	1	1	
Do.	Calamba	F, 6th Art.; B, D, K, L, 21st Inf.	1	1	1	
Do.	Near Santa Cruz	Det. A, 4th Cav.	1	1	1	
Do.	Near Calulut	Dets. E, M, 17th Inf.	1	1	1	
Do.	Guagua	9th Inf.	1	1	1	
Oct. 4	Arayat	E, F, K, 22d Inf.	1	1	1	
Oct. 6	Binacayan	B, C, D, E, H, K, L, 4th Inf.	1	1	1	
Oct. 6	do	F, 6th Art.; B, C, D, E, H, K, L, 4th Inf.; H, 14th Inf.	1	1	1	
Do.	Imus	F, 6th Art.; A, E, F, G, 4th Inf.	1	1	1	
Do.	Polo	K, 16th Inf.	1	1	1	
Do.	Santa Ana	K, 24th Inf.	1	1	1	
Oct. 7	Sagayon River	Det. B, 6th Inf.	1	1	1	
Do.	St. Augustin	A, F, K, 24th Inf.	1	1	1	
Oct. 8	Near San Nicolas	A, E, F, G, 4th Inf.; Hosp. Corps.	1	1	1	
Do.	Novaleta	F, 6th Art.; G, 4th Cav.; E, G, 14th Inf.; 13th Inf.	1	1	1	
Do.	Near San Mateo	Det. L, 14th Inf.	1	1	1	

Capt. M. B. Safford, 18th Inf., killed; Capt. H. J. McGrath, 4th Cav., wounded.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1899.							
Oct. 8	La Loma	1 man, F. 4th Art. (resisting capture by insurgents)					
Oct. 9	Florida Blanca	Det. 36th Inf.		1			
Do.	Near San Mateo	L. 14th Inf.; Det. F. 19th Inf.					
Do.	Meycauayan	Det. D. 16th Inf.					
Do.	Near Caloccan	Band, A. 16th Inf.					
Do.	La Loma	F. 4th Art.; 23th Inf.				1	
Oct. 10	San Mateo	L. 14th Inf.					
Do.	Near San Francisco de Malabon.	F. 5th Art.; 13th Inf.				1	
Do.	Santa Cruz	A. Engineers					
Oct. 11	Angeles	9th Inf.; 12th Inf.; 17th Inf.				1	
Oct. 12	Near Muntinlupa	A. B. D. 37th Inf.; Hosp. Corps				5	
Do.	Rayat	B. C. F. 4th Cav.; A. C. E. F. G. H. I. K. 24th Inf.; G. H. 37th Inf.		3		2	
Do.	Bugabug Bridge	B. 16th Inf.				2	
Oct. 13	Angeles	8th Inf.				1	
Do.	Near San Roque	C. D. F. 4th Cav.				2	
Oct. 15	Near Guiguinto	Det. F. 16th Inf.					
Oct. 16	Angeles	36th Inf.; 12th Inf.; 17th Inf.; Hosp. Corps					
Oct. 17	Near Doña Jose	Det. D. 16th Inf.		1		1	
Do.	Maricao Bridge	Det. D. 16th Inf.		1		1	
Oct. 18	Near Guiguinto	Det. L. 6th Inf.				2	
Oct. 19	Baguio	Det. L. 6th Inf.					
Do.	Lulus Mountains	Det. M. 18th Inf.					
Do.	Jaro	A. B. F. 4th Cav.; A. F. I. K. 22d Inf.; G. H. 37th Inf.; Hosp. Corps		1		1	
Do.	San Isidro						
Do.	Cabiao	L. 4th Cav.					
Oct. 20	Calamba	F. 4th Art.; 21st Inf.; A. B. D. 37th Inf.					
Oct. 21	Near Isabela	Det. L. 6th Inf.					
Do.	Near San Carlos	Det. L. 6th Inf.					
Oct. 22	Rio Grande River	Scouts 34th Inf.; Q. M. Dept.		1			
Do.	Near Castellana	K. 6th Inf.					
Do.	Near Lubao	Scouts 36th Inf.					
Oct. 23	Calamba	F. 5th Art.; B. D. I. 21st Inf.; A. B. C. 37th Inf.		1		4	
Do.	Santa Rosa	B. 4th Cav.					
Oct. 25	Sudlon Mountain	H. I. K. 9th Inf.				2	
Do.	Near Calatrava	Det. I. 6th Inf.					
Oct. 27	Tobocatin River	A. F. I. K. 22d Inf.; G. H. 37th Inf.; Lowe's Scouts		2		1	
Do.	Hacienda Carmie	H. 6th Inf.					
Oct. 28	Near Isabela	Det. L. 6th Inf.					
Do.	Boyes	K. 6th Inf.					

Oct. 29	Lubao	Det. 86th Inf.; Hosp. Corps.	1	2	6	Capt. C. French and Lieut. A. M. Ferguson, 86th Inf., wounded. 2d Lieut. H. M. Bontelle, 3d Art., killed.
Nov. 2	Near Allaga	Macabebe Scouts	1			
Do.	Near Lubao	C. D. G. H. 36th Inf.				
Do.	Forac	E. K. 4th Cav.; A, B, E, F, I, K, L, M, 36th Inf.	1		2	
Nov. 3	Near Allaga	H. M. 4th Cav.			1	
Do.	Near Talavera	L. 4th Cav.				
Nov. 4	Near Forac	Det. 36th Inf.		1		
Nov. 5	Magalang	E. 1st Art.; K. 3d Art.; A, Engrs.; E, K, 4th Cav.; 17th Inf.; E. 23d Inf.; Hosp. Corps.		1	10	Lieut. Col. W. R. Grove, 86th Inf., wounded. A. A. Surg. R. A. Edmonston, wounded.
Do.	Cabanatuan	E. 4th Cav.; Lowe's Scouts				
Nov. 6	Near Magalang	E. K. 4th Cav.; E. 1st Art.; K. 3d Art.; 36th Inf.			1	
Nov. 7	Mabalcacat	A. D. L. 4th Cav.				
Do.	Talavera	13th Inf.; 36d Inf.			1	
Nov. 8	San Fabian	4th Cav.; 36th Inf.				
Do.	Mabalcacat	L. K. L. M. 18th Inf.				
Nov. 9	San Jacinto	Det. E. 4th Cav.; Det. 36th Inf.			1	
Nov. 10	Near Bamban	G. 6th Art.; C. 26th Inf.			3	
Do.	San Isidro	A, B, C, D, E, F, G, H, 18th Inf.				
Do.	Jiluan	A. C. 17th Inf.				
Do.	Massapinit	Det. D. 6th Inf.				
Do.	Byoo	Det. 38d Inf.				
Nov. 11	Near San Fabian	F. 3d Cav.				
Do.	Huningan	E. K. 4th Cav.; E. 1st Art.; A, Engrs.; 9th Inf.; 12th Inf.; 17th Inf.; 36th Inf.	1		1	2d Lieut. J. L. Davis, 86th Inf., killed.
Do.	Bamban	L. 28th Inf.			1	
Do.	Iloilo	Det. K. 16th Inf.			1	
Do.	Near San Mateo	E. K. 4th Cav.; 17th Inf.	2		1	
Do.	Near Santa Rita	C. M. 3d Cav.				
Do.	Tayug	38d Inf.; Hosp. Corps.	1	6	1	Maj. J. A. Logan, 38d Inf., killed; Capt. J. F. Green, 38d Inf., wounded.
Do.	San Jacinto				15	
Nov. 12	Near San Blas	A. C. 19th Inf.				
Do.	Pongabong	D. 3d Cav.				
Do.	Astigan	A. C. 3d Cav.				
Nov. 13	Near Farlec	Det. E. 36th Inf.			1	
Do.	Near San Nicolas	Det. M. 3d Cav.				
Do.	Calamba	F. 5th Art.; A, B, C, 37th Inf.				
Nov. 14	Near Alimodian	C. 19th Inf.			1	
Do.	Rabon River	13th Inf.			4	
Do.	Near Mandocae	D. K. 3d Cav.				
Do.	Near Calamba	F. 5th Art.; L. 1st Inf.				
Nov. 15	Pozorrubio	A. K. 3d Cav.				
Nov. 16	Valle Hermoso	Det. L. 6th Inf.				
Nov. 17	Near San Nicolas	E. K. 3d Cav.				
Do.	O'Donnell	B. E. K. 26th Inf.				
Nov. 18	Jaro River	A, B, C, D, I, K, L, M, 26th Inf.			1	
Do.	Near Imus	C. I. F. 11th Cav.; F. 5th Art.; C, D, L, M, 4th Inf.			7	
Do.	Near Los Baños	H. 21st Inf.	1			
Nov. 19	Near San Nicolas	A. K. 3d Cav.	1			
Do.	Near Santo Tomas	do			7	

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Offi- cers.	Men.	Offi- cers.	Men.	
1899.							
Nov. 19	Near Aringay	D. 3d Cav.					
Nov. 20	San Blas.	G. 6th Art.; Det., 18th Inf.; F. H, 26th Inf.; A, B, C, D, E, F, G, L, 19th Inf.				4	
Do...	San Fernando de Union.	D. 3d Cav.					
Do...	Near Imus.	F. 5th Art.; Dets. B, H, I, K, 4th Inf.				2	
Nov. 21	Balangang	L. 6th Inf.; A, C, D, I, L, M, 26th Inf.				6	
Do...	Near Iliaya.	G. 6th Art.; A, B, C, D, E, F, G, H, 18th Inf.				19	
Do...	Obando.	Det. K, 16th Inf.		4	2		
Nov. 22	Near San Mateo.	Dets. A, C, K, 16th Inf.; Macabebes Scouts.				3	
Do...	Santa Barbara.	G. 6th Art.; A, B, C, D, E, F, G, H, 18th Inf.					
Nov. 24	Manichen.	B. 35th Inf.					
Do...	Tobaatin Bridge.	E. 35th Inf.		1			
Do...	Near San Mateo.	I, L, 27th Inf.				1	
Do...	San Ildelfonso.	G. 3d Art.; I, K, L, 3d Inf.				1	
Do...	Near Carranglan.	Det. L, 4th Cav.					
Nov. 25	Imus.	F. 5th Art.; 4th Inf.				3	
Do...	Mangatarem.	Det. 33d Inf.					
Do...	Banati.	L. 6th Inf.					
Nov. 26	Barrio Bocola.	Det. 32d Inf.					
Do...	Passi.	G. 6th Art.; I, K, L, M, 18th Inf.; A, B, C, D, E, F, G, L, 19th Inf.		1			
Nov. 27	Near Tariae.	Det. G, 9th Inf.					
Nov. 28	Near Mangatarem.	A, C, D, G, H, K, L, M, 36th Inf.					
Do...	Near Malabacat.	Macabebes Scouts.					
Nov. 29	Near San Miguel.	Det. H, 35th Inf.			1		
Nov. 30	Near Carmen.	F. 35th Inf.					
Dec. 1	Delcarmen.	do					
Dec. 2	Tila Pass.	E, F, G, H, 33d Inf.		2		3	
Do...	Barrio Santol.	G. 32d Inf.				9	
Dec. 8	San Luis.	Dets. A, F, H, K, 24th Inf.				1	
Do...	Near Arayat.	Det. L, 35th Inf.				1	
Dec. 4	Tangadan Mountain.	A, D, K, 3d Cav.; F, G, H, 34th Inf.; 100 men, 33d Inf.		1		12	
Do...	Imus River.	D. 28th Inf.				1	
Do...	Near Arayat.	Dets. D, I, 35th Inf.					
Do...	San Ildelfonso.	G, H, L, 3d Art.; A, B, C, 3d Inf.; det. 16th Inf.				4	
Do...	Vigan.	Det. 33d Inf.				3	
Do...	Dinalupjan.	L. 3d Art.; E, F, G, H, 3d Inf.; D, G, 32d Inf.					
Dec. 6	Near San Ildelfonso.	G, H, L, 3d Art.; A, B, C, 3d Inf.; det. 16th Inf.		8			
Do...	Orani.	E, F, G, H, 3d Inf.; D, E, H, M, 33d Inf.					
Do...	Near San Miguel.	L. 3d Art.					
Dec. 6	Near San Felipe.	A, 27th Inf.				1	
Do...	Maasin.	G, H, L, 3d Art.; A, B, C, 3d Inf.; det. 16th Inf.					

2d Lieut. R. B. Calvert and 2d Lieut. C. M. Smith, 18th Inf., wounded.

2d Lieut. Maxwell Keyes, 3d Inf., killed.

Capt. O. B. Warwick, 18th Inf., killed.

1st Lieut. M. A. Batson, 4th Cav., wounded.

Do.	Balanga	E, F, G, H, 3d Inf.				1
Do.	Imus River	Det. C, 4th Inf.				
Do.	Calamba	F, 5th Art.; A, B, C, 37th Inf.				4
Dec. 7	Nagulan	A, F, H, 24th Inf.				2
Do.	La Granja	Det. M, 6th Inf.	1			1
Do.	San Fernando de Rivera	F, H, I, M, 25th Inf.				
Dec. 8	Olongapo	G, 32d Inf.; det. 3d Inf.				
Do.	Boholan	F, H, I, M, 25th Inf.				1
Do.	Dingras	F, G, H, 34th Inf.				
Do.	Gingran	Det. D, 6th Inf.				2
Dec. 9	Iba	F, H, I, M, 25th Inf.				1
Do.	Near Dingras	F, G, H, 34th Inf.				
Dec. 10	San Ildefonso	A, B, C, 3d Inf.				
Do.	Sibul Trail	A, B, D, F, G, H, 4th Cav.				2
Do.	Subig Bay	E, H, 3d Inf.; G, 32d Inf.				
Do.	Solsana	F, G, H, 34th Inf.				1
Dec. 11	Near San Miguel	A, B, C, 3d Inf.; 35th Inf.				
Do.	Near Blacao	A, B, D, F, G, H, 4th Cav.				
Do.	San Ildefonso	G, H, L, 3d Art.; A, B, C, 3d Inf.				
Do.	San Agustin	Det. I, 32d Inf.				
Do.	Near Carranglan	E, 34th Inf.				
Do.	Barrio Oranda	D, H, 6th Inf.				
Dec. 12	Castel Jose	32d Inf. scouts	2			1
Do.	Near Blacao	A, K, 3d Cav.				
Do.	Near Subig	A, B, D, F, G, H, 4th Cav.				
Dec. 13	Near Subig	Det. G, 32d Inf.				
Do.	Near San Miguel	A, B, D, F, G, 4th Cav.				
Dec. 16	Rombon	C, D, 18th Inf.	1			
Do.	Mariveles	G, 32d Inf.				
Do.	Barrio Cabog	Det. D, K, 6th Inf.				1
Do.	Near Dingras	F, G, H, 34th Inf.; det. 33d Inf.				
Dec. 17	Cabarruan	B, E, 17th Inf.			1	
Do.	Morong	E, M, 32d Inf.				
Dec. 18	Canavea	F, 35th Inf.				
Do.	Iba	I, 25th Inf.				1
Do.	Capitulan	E, 34th Inf.				
Dec. 19	San Mateo	I, 4th Cav.; C, D, F, G, H, I, K, M, 11th Cav.; A, B, C, M, 27th Inf.; E, F, G, H, 29th Inf.	1		3	10
Do.	do	A, 27th Inf.				
Do.	Sual	Det. 36th Inf.				
Do.	Hacienda Tongal	Det. D, 6th Inf.	1			
Do.	Balanga	M, 32d Inf.				
Dec. 20	Samponong	Det. D, 26th Inf.				
Do.	Campanang	F, 17th Inf.				
Do.	Balincaguing	36th Inf.				
Do.	Near Carranglan	B, 22d Inf.				
Dec. 21	Near Alos	36th Inf.	1			
Do.	Near Orani	G, 32d Inf.				
Dec. 22	Near Dinalupjan	D, 32d Inf.				
Do.	Sara	D, 26th Inf.				1

1st Lieut. A. C. Ledyard, 6th Inf., killed.

2d Lieut. L. N. Byshfield, 17th Inf., wounded.

Maj. Gen. H. W. Lawton, U. S. V., killed, Capt. O. T. Kenan, 29th Inf.; 1st Lieut. W. V. Cochett, 11th Cav.; and 2d Lieut. E. L. D. Breckinridge, 7th Inf. (A. D. C.), wounded.

1st Lieut. W. C. Read, 36th Inf., wounded.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off. cers.	Men.	Off. cers.	Men.	
1899.							
Dec. 23	Near Aritos.	E. 34th Inf.					
Dec. 24	Near Subig.	Det. 32d Inf.					
Dec. 24	Near Calamba.	E. C. 21st Inf.; A. B. C. 37th Inf.			1	1	1st Lieut. C. C. Smith, 32d Inf., wounded.
Do.	Near Topaz.	L. 19th Inf.					
Dec. 27	Montalban.	E. 6th Art.; A. B. C. D. E. F. I. L. M. 11th Cav.; M. 27th Inf.; A. D. I. L. 29th Inf.			1	3	1st Lieut. R. S. Enslow, 11th Cav., wounded.
Do.	Near Baliuag.	Det. E. 35th Inf.					
Do.	San Mateo Mountains.	B. C. D. I. K. L. M. 46th Inf.				3	
Dec. 28	Talavera road.	Det. G. 24th Inf.				2	
Dec. 29	Bongabong.	G. 24th Inf.					
Dec. 31	Paniqui.	12th Inf.		1			
1900.							
Jan. 1	Iba.	M. 25th Inf.					
Do.	San Cristobal.	F. 6th Art.; E. F. G. H. K. M. 39th Inf.					
Do.	Near Calamba.	A. B. C. D. 39th Inf.					
Do.	Manaling.	L. 39th Inf.					
Do.	San Cristobal River.	E. F. G. H. I. L. M. 39th Inf.				5	
Do.	Cabanatuan.	A. 31th Inf.					
Jan. 2	San Ramon.	M. 3d Cav.				1	
Do.	Near Bacoor.	C. 28th Inf.					
Do.	Near Maricabon.	1 man (messenger), C. 28th Inf.					
Do.	Near Dinalupjan.	Det. D. 32d Inf.				1	
Do.	Near Florida Blanca.	Det. 3d Inf.				1	
Do.	Binan.	F. 6th Art.; E. F. G. H. I. K. L. M. 39th Inf.					
Jan. 3	Carmona.	I. L. 39th Inf.					
Do.	Lechona Hill.	I. 37th Inf.					
Do.	Near Dinalupjan.	Det. E. 32d Inf.					
Do.	Iba.	F. 25th Inf.					
Do.	Comansi.	B. K. L. 25th Inf.		1		2	
Jan. 5	Near Balanga.	E. 32d Inf.					
Do.	Iba.	F. M. 25th Inf.					
Do.	Mount Arayat.	9th Inf.; 12th Inf. (prisoners in hands of insurgents)					
Jan. 6	Near Bisan.	E. 6th Art.; A. B. C. D. I. 4th Cav.; C. F. I. M. 11th Cav.; I. K. L. M. 46th Inf.; 30th Inf.		2		3	
Do.	Mabalacat.	L. 25th Inf.					
Do.	Iba.	M. 25th Inf.					
Do.	Sudlon Mountain.	D. 19th Inf.					
Do.	Bautista.	1 man, A. 17th Inf., ambushed		1		1	
Jan. 7	Near Indang.	A. B. C. D. I. 4th Cav.; C. F. I. M. 11th Cav.					
Do.	Puente Julian.	C. and scouts, 4th Inf.					
Do.	Near Bisan.	Macabebe Scouts		1		2	
Do.	Barrio Lumbato.	E. F. G. H. I. K. L. M. 28th Inf.					
Do.				1		6	1st Lieut. Ward Cheney, 4th Inf., killed. 1st Lieut. W. C. Gelger, 14th Inf., wounded.

Do...	Barto Puto.	F, 5th Art.; A, B, C, D, 28th Inf.				9
Jan. 8	Sudlon Mountain	G, 6th Art.; D, I, M, 19th Inf.; M, 23d Inf.; L, K, M, 44th Inf.				5
Jan. 9	Nalc	A, B, C, D, I, 4th Cav.; C, F, I, M, 11th Cav.				2
Do...	Santo Tomas	F, 5th Art.; A, B, C, 37th Inf.; A, B, C, D, E, F, G, H, 39th Inf.	1	2		1
Jan. 10	Near Baboula	Det. 3d Inf.	1			
Do...	Bintog	Det. D, 35th Inf.				
Do...	Near Magallanes	K, L, 30th Inf.				
Jan. 11	Near Pantan	11 men 18th Inf.	1			
Do...	Near Binan	Det. L, 46th Inf.				
Do...	Near Santo Tomas	F, 5th Art.; E, 39th Inf.; A, B, C, 37th Inf.	1			
Do...	Talisy	38th Inf.				
Do...	Pulanlay	F, G, 3d Inf.				
Do...	Quangan	E, 33d Inf.	1			
Jan. 12	Near Santo Tomas	Det. G, 39th Inf.				
Do...	Near Sedupin	C, 3d Cav.	2			3
Jan. 13	Near Lipa	F, 5th Art.; 38th Inf.; 39th Inf.	1			2
Do...	Saplan	L, 18th Inf.				
Do...	Near Porac	Det. K, 32d Inf.				
Jan. 14	Camballos Pass.	Det. 34th Inf.	1			2
Do...	Bimanya	E, 3d Cav.	1			
Do...	Near San Pablo.	A, B, C, D, I, 4th Cav.; C, F, I, M, 11th Cav.; A, B, C, 37th Inf.				1
Do...	Humangan	A, 17th Inf.				
Do...	Near San Jose	B, C, D, I, 4th Cav.; C, F, I, M, 11th Cav.	1			
Jan. 15	Tiaon	Det. G, 39th Inf.				
Do...	San Idefonso.	A, 17th Inf.				
Do...	Mount Arayat	Det. M, 34th Inf.				
Do...	Near Ibaan	I, K, L, 30th Inf.				
Do...	Near Lipa	A, B, C, D, I, 4th Cav.; A, B, C, D, 38th Inf.; H, 39th Inf.	1			
Jan. 16	Batangas	Det. E, 17th Inf.				
Do...	Malasiqui	F, 4th Art.				
Do...	Near Lipa	F, 4th Art.; E, F, G, H, 39th Inf.	1			1
Jan. 17	Near Rosario	F, 5th Art.				1
Do...	Dumandan	F, G, 3d Inf.				1
Do...	Near Humangan.	A, 17th Inf.				
Do...	Near Abucay	Det. 32d Inf.				
Do...	Near Munoz	K, 34th Inf.				
Jan. 18	Near Porac	Det. 3d Inf.				
Do...	Near Alaminos	Det. 30th Inf.				
Do...	Near Lemery	F, G, H, 46th Inf.				7
Do...	Antique	E, 6th Art.; A, C, E, L, 19th Inf.	2			3
Jan. 19	Taal	A, B, C, D, 38th Inf.	1			1
Do...	Rosario	G, M, 38th Inf.				7
Do...	Near Concepcion	Det. 30th Inf.				2
Do...	Near Magallanes	A, E, G, L, 11th Cav.; E, F, G, H, 45th Inf.				2
Do...	Near Mangatarem.	3 men, 38th Inf., ambushed				
Do...	Sariaya	C, F, I, M, 11th Cav.	1			4
Do...	Palad Pass	C, 3d Cav.	2			1
Jan. 21	Near San Pablo.	E, 6th Art.; A, B, C, D, E, F, G, H, M, 30th Inf.; A, B, C, D, 37th Inf.; A, B, C, D, E, G, H, 39th Inf.				10
Do...	Sariaya	L, L, 38th Inf.	1			3
Jan. 22	Balucaing.	Dets. D, G, 36th Inf.				3

Capt. H. C. Baker and 1st Lieut. A. M. Petite,
39th Inf., wounded.

1st Lieut. O. P. M. Hazzard, 11th Cav., wounded.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1900							
Jan. 22	Tubur.	Det. E. 17th Inf.					
Do.	Donsol.	A. D. 47th Inf.					
Jan. 23	Near Moncada.	Det. M. 17th Inf.					
Do.	Legaspi.	C. E. F. G. H. 47th Inf.			1	2	Capt. J. J. Bradley, A. Q. M. V., wounded.
Do.	Malayjay.	C. 4th Cav. A. B. C. F. G. H. 39th Inf.					
Jan. 24	Donsol.	Det. 33d Inf.					
Do.	Near Magallanes.	A. B. E. G. L. 11th Cav.; I. K. L. M. 45th Inf.					
Jan. 25	Near Tanay.	P. H. 27th Inf.					
Do.	Daso.	Det. C. D. G. 36th Inf.					
Do.	Near Lipa.	F. H. 33d Inf.			1		
Do.	Daraga.	F. H. 47th Inf.					
Do.	Rulacan.	Mababe Scouts.					
Jan. 26	Calbayog.	F. G. H. 43d Inf.			1	2	2d Lieut. D. P. Quinlan, 11th Cav., wounded.
Do.	Donsol.	F. H. 47th Inf.					
Do.	Near Santa Cruz.	Det. F. 11th Inf.					
Jan. 27	San Luis.	B. C. D. 38th Inf.			1	2	Maj. C. H. Muir, 38th Inf., wounded.
Do.	Cavitan.	A. C. 19th Inf.					
Do.	Cathalogan.	A. K. L. M. 43d Inf.					
Jan. 28	Barrio Pulol.	F. 5th Art. A. B. C. D. 28th Inf.					
Do.	Managore.	B. G. 19th Inf.			1	2	
Do.	Cavint.	L. M. 37th Inf.					
Do.	Euenavista.	A. B. D. 47th Inf.					
Do.	Taybas.	A. B. C. D. 30th Inf.			1	1	2d Lieut. G. A. Boyle, 30th Inf., wounded.
Jan. 29	Donsol.	A. D. 47th Inf.					
Do.	Sampaloc.	C. D. 37th Inf.; E. 39th Inf.					
Do.	Near Castellajes.	Det. B. K. L. 25th Inf.	1	3		5	1st Lieut. W. T. Schenck, 25th Inf., killed.
Do.	Sogod.	Det. K. 19th Inf.					
Do.	Near Cathalogan.	F. K. L. M. 43d Inf.					
Do.	Tauit Taut Island.	5 men, Co. H. 23d Inf., ambushed.			2	2	
Jan. 30	Donsol.	A. D. 47th Inf.					
Do.	Albay.	Det. 47th Inf.					
Do.	Madelay.	Det. F. G. H. 44th Inf.					
Jan. 31	Donsol.	A. D. 47th Inf.					
Do.	Near San Isidro.	Det. B. 34th Inf.					
Do.	Albay.	F. G. H. 47th Inf.			1	1	
Feb. 1	Near Cavint.	F. K. L. M. 37th Inf.					
Do.	Sulapa.	Det. A. 12th Inf.					
Feb. 2	Near Mabacat.	Cavan. B. 41st Inf., ambushed.					
Do.	Near Lake Bombon.	Det. K. 39th Inf.			1	1	
Do.	Barrio Talumpoc.	A. B. C. D. 38th Inf.					
Do.	Near San José.	G. H. 38th Inf.					
Do.	Legaspi.	E. 47th Inf.			1	4	

Do.	Near Lucena	Det. M. 39th Inf.				
Do.	Murcia	I. 9th Inf.				
Feb. 3	Near Nalpoze	Det. H. 43d Inf.				1
Do.	Lanot	E. H. 39 Inf.				
Feb. 4	Near Sampaloc	Dets. F. H. 30th Inf.				2
Do.	Fort Amia	Det. G. 19th Inf.				1
Do.	Near Pagsajan	C. G. 42d Inf.				2
Do.	Taal	L. 6th Inf.			1	
Feb. 5	Near Consolacion	K. 19th Inf.				1
Do.	Near Llana Hermosa	Det. G. 32d Inf.		6		
Do.	Cauteiro	Det. K. 18th Inf.				2
Do.	Pacuil	Dets. D. E. F. H. 42d Inf.			1	
Do.	Taon	Dets. B. C. D. 39th Inf.				1
Do.	Talambang	K. 19th Inf.				
Do.	Near Mandog	C. 13th Inf.				
Do.	Near Tayabas	Det. M. 39th Inf.				
Do.	Near Lake Taal	Dets. I. K. 39th Inf.				
Feb. 6	Albay	F. G. H. 47th Inf.		2		3
Do.	Darago	F. H. 47th Inf.				3
Do.	Patnongon	C. 19th Inf.		1		
Do.	Near Candelaria	Dets. B. C. D. 39th Inf.				
Feb. 7	Dasol	E. K. 4th Cav.; det. 36th Inf.				
Do.	Near Cabanatuan	L. 34th Inf.				
Do.	Pacuil	Dets. D. E. F. H. 42d Inf.				
Do.	Near Magdalena	Det. A. 4th Cav.; det. 11th Cav.; det. 37th Inf.				8
Feb. 8	Darago	F. 3d Art., F. 40th Inf.; dets. F. H. 47th Inf.				1
Feb. 9	Subig	B. K. L. 25th Inf.				
Do.	Tabaco	F. 3d Art., L. 47th Inf.				
Do.	Near Baian	I. 38th Inf.				
Do.	Near Legaspi	G. 40th Inf.				
Do.	Bong Bong	L. 6th Inf.				1
Do.	Sapong Maragul	G. 9th Inf.				
Do.	Near Dasol	E. K. 4th Cav.; Det. 36th Inf.				1
Feb. 11	Near Santa Cruz	Det. C. 4th Cav.				
Do.	Near Tayabas	B. 30th Inf.				
Do.	Near Aliaga	I. 24th Inf.				
Do.	Near Angono	M. 27th Inf.				
Feb. 12	Santa Clara	I. K. L. M. 39th Inf.				
Do.	Near Albay	Dets. I. K. L. M. 27th Inf.				
Feb. 13	Barrio Bartolome	Dets. D. F. H. 42d Inf.		1		2
Do.	Lumbang	A. 6th Inf.				
Do.	Near Madalag	M. 26th Inf.				
Do.	Niagao	Det. 47th Inf.				
Do.	Tabaco	E. F. H. 40th Inf.				1
Feb. 14	Darago	Det. 44th Inf.		1		
Do.	Near Barotoc	G. 9th Inf.				
Do.	Tinuba	G. 42d Inf.				
Feb. 15	Pagsajan	B. 17th Inf.		2		
Do.	Near Alcala	H. 27th Inf.				
Do.	Near Tanay	G. 6th Art.; A. C. L. 19th Inf.		1		
Do.	Patnongon					

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1900.							
Feb. 15	Barangban	E. 19th Inf.				1	
Do.	Cavitan	G. 6th Art.; A. C. L. 19th Inf.				3	
Feb. 16	Near Magdalena	Det. A. B. C. D. 37th Inf.				1	
Do.	Near Pozorrublo	Det. D. 13th Inf.					
Do.	Near Cavitan	Det. 18th Inf.				1	
Feb. 17	Baranban	E. 19th Inf.				2	
Do.	Tagudin	H. 29th Inf.		1			
Do.	Near Pozorrublo	Det. B. 13th Inf.					
Do.	Near Castellana	D. 44th Inf.					
Do.	Cavitan	L. 6th Inf.					
Feb. 18	Antipoline	L. M. 30th Inf.				2	
Do.	Botolan	Det. M. 3d Cav.					
Do.	Near San Juan	Det. 11 25th Inf.		1			
Do.	Dingle	1 man, B. 26th Inf., ambushed					
Feb. 19	Lucban	G. H. 30th Inf.					
Do.	Near Pacuil	Det. E. F. 42d Inf.		1			
Feb. 20	Calabanga	E. F. G. H. 45th Inf.					
Do.	Near Mandua	K. 22d Inf.					
Do.	Libmanan	G. 37th Inf.; A. B. C. D. 40th Inf.					
Do.	Donsol River	Det. A. D. 47th Inf.		1		8	1st Lieut. J. B. Galleher, 40th Inf., wounded.
Feb. 21	Calinog	A. B. C. 26th Inf.					
Do.	Near Botolan	Det. M. 25th Inf.					
Feb. 22	Palasi Pass	C. M. 3d Cav.; H. 29th Inf.; E. G. 33d Inf.		1		1	
Do.	Camalig	F. 3d Art.; E. F. G. H. 40th Inf.				1	
Do.	Barrio Aguliar	Det. B. E. 36th Inf.					
Do.	Darago	E. F. G. 40th Inf.; det. 47th Inf.					
Do.	Comogisongalan	Det. 36th Inf.				1	
Feb. 23	Malajay	D. 37th Inf.					
Do.	Near Pae	Det. E. H. 42d Inf.					
Do.	Calinog	F. 25th Inf.		3			
Do.	Guinobatan	F. 3d Art.; E. F. G. H. 40th Inf.					
Feb. 24	Near Tangalan	C. 6th Inf.			1	3	1st Lieut. F. C. Bolles, 6th Inf., wounded.
Do.	Sevilla	D. 30th Inf.					
Do.	Barrio Tambolan	Det. 44th Inf.		1			
Do.	Near Urdaneta	Det. G. 13th Inf.					
Do.	Near Lemery	D. 28th Inf.					
Feb. 25	Akaminos	D. G. 36th Inf.					
Do.	Near Andangan	A. C. D. I. K. M. 45th Inf.					
Feb. 26	Near San Juan	D. 3d Cav.		1			
Feb. 27	Barrio Guimball	Det. B. 19th Inf.				2	
Do.	Near Tigaon	C. D. 40th Inf.		1		3	
Do.	Near San José	I. 38th Inf.					

Feb. 28	Near Magdalena.....	Det. A. B. 37th Inf.	Det. L. M. 37th Inf.	1	1	Capt. S. Van Leer, 37th Inf., wounded.
Do...	Sonocot.....	Det. L. M. 37th Inf.	Det. L. M. 37th Inf.	1	1	
Do...	Near Iligan.....	Det. E. 16th Inf.	Det. E. 16th Inf.	2	2	
Mar. 1	Near La Lita.....	Det. E. 16th Inf.	Det. E. 16th Inf.	1	1	
Do...	Uniao.....	Det. E. 16th Inf.	Det. E. 16th Inf.	2	2	
Mar. 2	Paganjan.....	Det. E. 16th Inf.	Det. E. 16th Inf.	1	1	
Do...	Barrio Antipolo.....	Det. E. 16th Inf.	Det. E. 16th Inf.	1	1	
Do...	Do.....	Det. E. 16th Inf.	Det. E. 16th Inf.	1	1	
Mar. 3	San Francisco.....	Det. K. 30th Inf.	Det. K. 30th Inf.	2	2	
Do...	Near Almonon.....	Det. K. 30th Inf.	Det. K. 30th Inf.	1	1	
Mar. 4	Near Luluana.....	Det. K. 30th Inf.	Det. K. 30th Inf.	1	1	
Do...	Near Almonon.....	Det. K. 30th Inf.	Det. K. 30th Inf.	1	1	
Do...	Do.....	Det. K. 30th Inf.	Det. K. 30th Inf.	1	1	
Mar. 5	Barrio Tinuba.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Do.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Mar. 6	Caubugao.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Near Tayabas.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Mar. 6	Penaranda.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Near Saraya.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Daso.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Mar. 7	Near Magdalena.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Near Bangad.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Near Paquil.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Near Paquil.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Mar. 8	Near Paganjan.....	Det. H. 43d Inf.	Det. H. 43d Inf.	1	1	
Do...	Near Matuguiniao.....	Det. H. 43d Inf.	Det. H. 43d Inf.	1	1	
Do...	Do.....	Det. H. 43d Inf.	Det. H. 43d Inf.	1	1	
Do...	Malabog.....	Det. A. 43d Inf.	Det. A. 43d Inf.	1	1	
Do...	Near Paz.....	Det. A. 43d Inf.	Det. A. 43d Inf.	1	1	
Mar. 9	Near Badoc.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Near Almonon.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Do...	Bugan.....	Det. L. 32d Inf.	Det. L. 32d Inf.	1	1	
Mar. 10	Near Bay.....	Det. F. G. 38th Inf.	Det. F. G. 38th Inf.	4	4	
Do...	Do.....	Det. F. G. 38th Inf.	Det. F. G. 38th Inf.	1	1	
Do...	Near Almonon.....	Det. K. 30th Inf.	Det. K. 30th Inf.	1	1	
Do...	Valderrama.....	Det. K. 30th Inf.	Det. K. 30th Inf.	1	1	
Mar. 11	Palase.....	Det. M. 43d Inf.	Det. M. 43d Inf.	8	8	
Do...	Malabog.....	Det. M. 43d Inf.	Det. M. 43d Inf.	1	1	
Do...	Dugant.....	Det. M. 43d Inf.	Det. M. 43d Inf.	1	1	
Do...	Pugason.....	Det. M. 43d Inf.	Det. M. 43d Inf.	1	1	
Do...	Do.....	Det. M. 43d Inf.	Det. M. 43d Inf.	1	1	
Mar. 12	Hilongos.....	Det. C. 43d Inf.	Det. C. 43d Inf.	1	1	
Mar. 13	Barrio Batis.....	Det. H. 34th Inf.	Det. H. 34th Inf.	1	1	
Do...	Near Badoc.....	Det. H. 34th Inf.	Det. H. 34th Inf.	1	1	
Do...	Puerto Rico.....	Det. H. 34th Inf.	Det. H. 34th Inf.	1	1	
Do...	Near Bugas.....	Det. H. 34th Inf.	Det. H. 34th Inf.	1	1	
Mar. 14	Near Magdalena.....	Det. A. B. C. D. 37th Inf.	Det. A. B. C. D. 37th Inf.	2	2	
Do...	Near San Manuel.....	Det. F. G. H. 43d Inf.	Det. F. G. H. 43d Inf.	2	2	
Do...	Getronatan.....	Det. F. G. H. 43d Inf.	Det. F. G. H. 43d Inf.	1	1	
Do...	Talsan.....	Det. F. G. H. 43d Inf.	Det. F. G. H. 43d Inf.	1	1	
Do...	Baguioan.....	Det. D. 32d Cav.	Det. D. 32d Cav.	1	1	

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1900.							
Mar. 14	Near Balanga	Det. E. 32d Inf.					
Do.	Near Bugason	H. 18th Inf.; E. L. 19th Inf.					
Mar. 15	Guisalan	H. 18th Inf.; A. C. E. L. 19th Inf.					
Do.	Atimonan	L. K. 30th Inf.					
Do.	Cuenca	L. 38th Inf.				2	
Mar. 16	Nagcarlang	Det. B. C. 39th Inf.				1	
Do.	Barrio Nana	Det. D. 32d Inf.					
Do.	Near Jaro	Det. B. 43d Inf.					
Do.	San Diego Hill	A. C. 39th Inf.		1			
Mar. 17	Pampanga River	G. 4th Cav.; Det. 34th Inf.; 3d Inf. scouts; Macabebes Scouts.					
Do.	Barrio Balabago	Det. 41st Inf.					
Do.	Sampaloc	E. F. L. M. 30th Inf.					
Do.	Cabang Cunjua	Det. D. 44th Inf.					
Mar. 18	Manauan	C. E. 16th Inf.			1		2d Lieut. C. M. Gordon, jr., 16th Inf., wounded.
Do.	Near Aliaga	Det. C. 12th Inf.					
Do.	Cabang Cabug	L. 18th Inf.					
Do.	Polangui	G. 37th Inf.; A. D. E. K. M. 45th Inf.				1	
Do.	Near Tagudin	Det. E. G. 33d Inf.				1	
Do.	Near Sampaloc	Det. C. 37th Inf.					
Do.	Pollumgubet	Det. 3d Inf.					
Mar. 19	Near Atimonan	Det. H. 30th Inf.					
Do.	Lerosa Pass	G. 37th Inf.					
Mar. 20	Near Camalig	G. 37th Inf.; A. D. E. K. M. 45th Inf.		1			
Do.	Mapotas	E. 18th Inf.				1	
Do.	Darago	G. 37th Inf.; A. D. E. K. M. 45th Inf.					
Mar. 21	Paele	E. 42d Inf.				1	
Do.	La Granja	Det. E. 43d Inf.					
Do.	Pozorrubio	Det. B. 13th Inf.				1	
Mar. 22	Cabang Cabug	L. 18th Inf.					
Do.	Near Cavinti	K. 37th Inf.		1		2	
Do.	Near Sexmoan	Macabebes Scouts					
Mar. 23	Camalig	G. 37th Inf.; A. D. E. K. M. 45th Inf.					
Do.	Near Sariaya	Det. F. 30th Inf.					
Do.	Near Caratan	E. 18th Inf.					
Do.	Guadalupe River	L. 23d Inf.					
Do.	Tlona	L. 23d Inf.					
Mar. 24	Near Hlaboug	Det. L. L. 43d Inf.				2	
Do.	Near Malolos	L. K. L. M. 30th Inf.					
Do.	Pinaranda River	G. 4th Cav.; Scouts 3d Brig., 2d Div.					
Mar. 25	Guisalan	A. C. E. 19th Inf.			1	1	1st Lieut. O. R. Wolfe, 22d Inf., wounded.
Do.	Near Balanga	G. 38th Inf.					
Do.	Near Bugason	C. E. 19th Inf.		1			

Mar. 26	Calbayog	E, F, G, H, 49d Inf.	1	3	8
Mar. 27	San José de Buenavista	H, 18th Inf.	1	1	1
Do.	Gandara	Det. 43d Inf.			
Mar. 28	Mabalacat	K, 9th Inf.			
Mar. 29	Malibloc	Det. 43d Inf.			1
Do.	Near Paete	Det. E, L, 49d Inf.			
Mar. 30	Barboza	E, 18th Inf.; A, C, E, 19th Inf.			1
Do.	Near Baruso	49d Inf.			2
Mar. 31	Near Dagami	1, 43d Inf.	1	1	
Do.	Near San José	E, 18th Inf.; A, C, E, 19th Inf.	1	1	
Do.	Batayan	Det. K, 9th Inf.			1
Do.	Near Mabacat	E, 18th Inf.; A, C, E, 19th Inf.			
Do.	Near Colasi	Det. K, L, M, 44th Inf.			1
Do.	Near Salamban	A, 19th Inf.			
Apr. 1	Gulujan	L, 47th Inf.			1
Apr. 2	Near San Nicholas	A, 3d Cav.			
Do.	Batac	A, 12th Inf.	1		
Apr. 3	Cavitan	A, L, 19th Inf.			
Do.	Near Apalit	3 men, K, 3d Inf., ambushed	3		
Do.	Near Bugason	E, 18th Inf.			
Apr. 4	Ricol River	Det. E, 46th Inf.			
Do.	Near San Vicente	Det. F, 13th Inf.; det. 24th Inf.			
Apr. 5	Near Lambunao	G, 28th Inf.			
Apr. 6	Near Balioang	C, 3d Cav.			
Do.	Barrio Ayson	A, 12th Inf.	1		
Do.	Barrio Caballitocan	Det. D, 3d Cav.			
Do.	Near Lapo	Det. L, 33d Inf.			
Apr. 7	Barrio Bartolome	Det. C, D, 27th Inf.	3	1	10
Do.	Near Mayantoc	I, K, L, M, 40th Inf.		1	
Do.	Santa Marguerita	L, 4th Cav.; A, D, E, I, L, M, 17th Inf.			
Apr. 8	Nueva Caceres	Det. G, 43d Inf.	1		
Do.	Balanga	K, 46th Inf.			
Apr. 9	Near Donsol	D, E, 32d Inf.			
Do.	Near San Jacinto	Det. D, 47th Inf.			
Do.	Near San Manuel	Det. B, 13th Inf.			1
Apr. 10	Malabog	Det. 13th Inf.			
Do.	Lavezares	F, H, 47th Inf.			
Do.	Gulubatan	E, 43d Inf.			
Apr. 11	Near Gulubatan	F, H, 47th Inf.	2		1
Do.	Near Orion	Det. B, C, 32d Inf.			
Do.	Asigan	F, 13th Inf.			1
Apr. 12	Near Ligo	F, H, 47th Inf.			
Do.	Asigan	F, 13th Inf.			
Do.	Anatara	F, 44th Inf.			
Do.	Curtinao	Det. G, 34th Inf.			
Do.	Near Nipperro	Det. E, G, 43d Inf.			
Apr. 13	San Augustin	12th Inf. Scouts			
Do.	Barrio Sanchez	F, 13th Inf.			
Do.	Gulubatan	F, H, 47th Inf.			
Do.	Mount Agsarab	H, 28th Inf.			

Capt. W. J. Watson, 40th Inf., wounded.
1st Lieut. F. J. Morrow, 17th Inf., wounded.

1st Lieut. H. J. Stewart, 49d Inf., wounded.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1901, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1900							
Apr. 14	Catubig	H and Det. F, 43d Inf.		18		5	
Apr. 14	Barrio Carsucan	Dets. E, F, H, 13th Inf.					
Do	Near Paquil	Det. L, 42d Inf.					
Do	Near San Augustin	Det. 12th Inf.					
Do	Malibog	Det. 43d Inf.				2	
Do	Near Donsol	A, 47th Inf.					
Do	Baler	Det. D, 34th Inf.				1	
Apr. 15	Cullebeng	F, 3d Cav.				2	
Do	Near Pasacao	Det. H, 45th Inf.					
Do	Vintar	Det. F, H, 34th Inf.					
Do	Jaro	B, 43d Inf.					
Do	Barrio Nagbuguel	H, 33d Inf.					
Apr. 16	Batac	A, L, 3d Cav.; B, G, 34th Inf.		2		3	
Do	Bacon	Det. K, M, 47th Inf.					
Do	Colasi	C, E, 19th Inf.					
Do	Near Pasacao	Det. H, 45th Inf.					
Do	Near Orion	Det. B, 32d Inf.					
Do	San Manuel	H, 13th Inf.					
Do	Near Ondong	Det. 48th Inf.					
Do	Salcedo	E, 33d Inf.					
Do	Talsan	Det. C, 38th Inf.				1	
Do	Near Vintar	Det. H, 34th Inf.					
Apr. 17	Laosag	A, 3d Cav.; F, H, 34th Inf.					
Do	Near Agsarab	G, H, 28th Inf.				4	
Do	Near Pulilan	Det. M, 35th Inf.		1		1	
Do	San Luis	L, 22d Inf.					
Do	Colasi	C, E, 19th Inf.					
Do	Near San Manuel	H, 13th Inf.					
Do	Barrio Cupat	Det. B, 32d Inf.; Macabebe Scouts					
Do	San Miguel	Det. H, 35th Inf.			1		
Apr. 18	Near Orion	Macabebe Scouts					
Do	Near San Miguel	Det. H, 35th Inf.					
Do	Colasi	C, E, 19th Inf.					
Do	Near Nabua	Det. E, 45th Inf.					
Do	Near San Miguel	L, man, B, 35th Inf.				1	
Apr. 19	Near Salcedo	Det. F, G, 33d Inf.				1	
Do	Barrio Mabuleng	A, 3d Cav.					
Do	Near Barcelona	L, 47th Inf.		1			
Do	Colasi	C, E, 19th Inf.					
Do	Penaranda	G, 4th Cav.					

2d Lieut. J. P. Hasson, 35th Inf., wounded.

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K.—*Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.*

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Off- cers.	Men.	Off- cers.	Men.	
1900.							
May 3	Near Dablain.	Det. A, 48th Inf.					
Do.	Jeon.	G 4th Cav.					
May 4	Bonangan.	Det. 47th Inf.					
Do.	Near Candon.	Det. G, 33d Inf.				3	
Do.	Nate.	F 11th Cav.					
Do.	Batayan.	Det. E, G 47th Inf.				1	
May 5	Polo.	Det. 43d Inf.			1		
Do.	Near Canayan.	Det. 1, 49th Inf.					
Do.	San Vicente.	A D, 49th Inf.					
Do.	Barrio San Antonio.	Det. 41st Inf.					
Do.	Near San Manuel.	K 24th Inf.					
May 6	Near San Manuel.	Det. H, 13th Inf.		1			
Do.	Dongon Pass.	Det. K, 48th Inf.; Macabebe Scouts					
Do.	Hilongos.	I K, 22d Inf.; C K, 43d Inf.				4	
Do.	Near Pambujan.	Dets. E, F, H, 43d Inf.				4	
Do.	Candelaria.	Dets. E, F, H, 25th Inf.				1	
Do.	Villasis.	Det. F, 13th Inf.; Macabebe Scouts					
Do.	Barbarit.	Det. A, 48th Inf.					
Do.	Near San Juan de Guimba.	Det. K, 34th Inf.					
Do.	Near Donsol.	Det. 47th Inf.					
May 7	Pamplona.	M 45th Inf.		1			
Do.	Mount Samal.	Det. E, 32d Inf.					
Do.	Quim.	Det. G, 34th Inf.					
Do.	Near Rosario.	B det. K, 48th Inf.; det. M, 3d Cav.				1	
May 8	Culbayog.	E, F, H, 43d Inf.					
Do.	Barrio Abass.	Det. D, 33d Inf.				1	
Do.	Panaga.	Det. C, 13th Inf.					
Do.	Near Orion.	Dets. B, C, 23d Inf.					
May 9	Taytay.	Det. C, 42d Inf.					
Do.	Angoro.	Det. C, 42d Inf.					
Do.	Santa Barbara.	Det. I, 22d Inf.					
Do.	Near Mexico.	Det. E, 41st Inf.					
May 10	Calabanga.	Det. 45th Inf.					
May 11	Near Matignao.	L 23d Inf.; A, C, E, K, 43d Inf.					
Do.	Valderrama.	H 18th Inf.	1	2			
Do.	Near Magaan.	Det. A, D, 47th Inf.					
May 12	Dulang.	A, 44th Inf.					
Do.	Near San Manuel.	Det. H, 13th Inf.					
Do.	Near Pozorrubio.	1 man, Co. B, 13th Inf., ambushed					
Do.	Paransa.	Det. I, 43d Inf.		1			
Do.	Alwayan.	F 48th Inf.					
May 13	Near Tandang.	Det. E, 84th Inf.					
							1st Lieut. J. H. Evens, 43d Inf., killed.

K.—Chronological list of actions, with losses, in the Philippine Islands from February 4, 1899, to June 30, 1900, inclusive—Continued.

Date.	Place.	Troops engaged.	Killed.		Wounded.		Names of officers killed or wounded.
			Offi- cers.	Men.	Offi- cers.	Men.	
1900.							
May 30	Near Labo.....	Det. B, 45th Inf.....					
Do.	Near Balamban.....	Det. M, 44th Inf.....					
Do.	Santo Tomas.....	Det. K, 34th Inf.....					
May 31	Near Gapan.....	G, 4th Cav.....					
Do.	Near Manaoag.....	C, 13th Inf.....				1	
Do.	Balingas.....	Det. I, 12th Inf.....				1	
Do.	Lambunao.....	Det. L, 18th Inf.....				2	
June 1	Near Biac-na-bato.....	Det. C, 35th Inf.....				1	
Do.	Barrio Isabong.....	Det. F, 30th Inf.....					
Do.	Talisay.....	Det. I, K, 39th Inf.....					
June 2	Barrio Mabaling.....	Det. G, 34th Inf.....					
June 3	Catbalogan.....	L, 43d Inf.....					
Do.	Bulacan Mountain.....	A, 22d Inf.; C, 34th Inf.....	1	1			
Do.	Malunu.....	Det. H, 15th Inf.....				2	
Do.	Near Bustos.....	Det. A, 35th Inf.....					
Do.	Near San Victor.....	Det. A, 43d Inf.....					
Do.	Nagbrecan.....	G, 34th Inf.....					
Do.	Barotac Nuevo.....	C, 26th Inf.....				8	
Do.	Near Magdalena.....	Det. E, 11th Cav.....					
June 4	Near Biac-na-bato.....	Det. C, 35th Inf.....				1	
Do.	Barrio Lauro.....	G, 3d Inf.; E, 35th Inf.....		1		6	
Do.	Near San Manuel.....	Det. H, 13th Inf.....					
Do.	Balubad.....	C, D, I, K, L, 35th Inf.....					
June 5	Near Barotac.....	C, 26th Inf.....				1	
Do.	Papaya.....	Det. A, B, 28th Inf.....				3	
Do.	Donsol.....	1 officer, 1 man, G, 26th Inf., ambushed.....					
June 6	Mina.....	A, D, 47th Infantry.....				1	
June 7	Boa River.....	Dets. A, B, M, 37th Inf.....				1	
Do.	Dumangas.....	Dets. A, B, C, D, 26th Inf.....					
Do.	Bisan Valley.....	Det. A, 32d Inf.....		1		1	
June 8	Calbayog.....	E, G, 43d Inf.....					
Do.	Donsol.....	A, D, 47th Inf.....					
Do.	Near Talisay.....	Det. K, 39th Inf.....					
Do.	Near Sibul.....	C, 34th Inf.....					
Do.	Near San Miguel de Mayo.....	Det. H, 4th Cav.; L, M, 34th Inf.....					
Do.	Near Teres.....	Det. L, 47th Inf.....					
June 9	Cabatuan.....	H, 26th Inf.....					
Do.	Baranen River.....	Det. C, 43d Inf.....					
Do.	Near Echague.....	Det. M, 16th Inf.....		1			
June 10	Anilao.....	Det. D, 26th Inf.....		1			

Capt. G. J. Godfrey, 22d Inf., killed.

1st Lieut. Grover Flint, 35th Inf., wounded.

Capt. F. F. Crenshaw, 28th Inf., wounded.

Capt. J. Bordman, Jr., 26th Inf., wounded.

June 30	Bolong	K, 26th Inf.				1
Do...	Sinfrozo de la Cruz	Det. E, 35th Inf.				
Do...	Near Indian	Det. E, 46th Inf.				
Do...	Near San Blas	3 men, 1 28th Inf., ambushed.				2
Do...	Nainil	B, 40th Inf.	1			
Do...	Conownl	Det. 28d Inf.				
Do...	Magaan	Det. 47th Inf.				
Do...	Near Gulnobatan	Det. B, 11th Cal.	1			
Total			83	476	a147	2,076

a Includes 3 acting assistant surgeons wounded.

ADJUTANT-GENERAL'S OFFICE.
Washington, D. C., October 1, 1900.

H. C. CORBIN,
Adjutant-General.

L.—*Retirements, resignations, deaths, etc., among officers, U. S. Army, since last annual report, and October 1, 1900.*

Name and rank.	Date.
RETIRED.	
Alden, Charles H., colonel, assistant surgeon-general.	April 28, 1900.
Anderson, Thomas M., brigadier-general.....	Jan. 21, 1900.
Brett, James E., captain, Twenty-fourth Infantry ..	Dec. 23, 1899.
Burke, Daniel W., brigadier-general.....	Oct. 21, 1899.
Calef, John H., lieutenant-colonel Third Artillery ..	Aug. 10, 1900.
Carpenter, Gilbert S., brigadier-general.....	Dec. 26, 1899.
Carpenter, Louis H., brigadier-general.....	Oct. 19, 1899.
Clapp, William H., lieutenant-colonel Twenty-first Infantry.	Sept. 7, 1900.
Coates, Edwin M., colonel Seventh Infantry.....	Jan. 29, 1900.
Craig, Robert, lieutenant-colonel, Signal Corps.....	Dec. 1, 1899.
Crowell, William H. H., major, Sixth Infantry.....	Jan. 15, 1900.
Evert, Edward, captain, assistant surgeon.....	April 28, 1900 (as major).
Ffield, Edward, lieutenant-colonel Third Artillery ..	June 6, 1900.
Frank, Royal T., brigadier-general.....	Oct. 18, 1899.
French, William E. P., captain, Second Infantry ..	Feb. 2, 1900.
Frost, Alfred S., major, paymaster.....	Feb. 14, 1900.
Fuger, Frederick, major, Fourth Artillery.....	June 18, 1900.
Gerlach, William, major, Twelfth Infantry.....	Nov. 15, 1899.
Hall, Henry H., chaplain.....	Oct. 25, 1899.
Hamner, William H., major, paymaster.....	Jan. 18, 1900.
Hartz, Wilson T., lieutenant-colonel Twenty-second Infantry.	May 31, 1900.
Kell, William H., captain, Twenty-second Infantry.	Dec. 15, 1899 (as major).
Kellogg, Edgar R., brigadier-general.....	Dec. 16, 1899.
Koerper, Egon A., lieutenant-colonel, deputy surgeon-general.	Feb. 21, 1900.
Lee, James G. C., colonel, assistant quartermaster-general.	Aug. 12, 1900.
Mackey, John O., captain, Third Cavalry.....	July 10, 1900.
Macomber, John H., chaplain.....	Feb. 17, 1900.
Mahan, Frederick A., major, Engineer Corps.....	April 2, 1900.
Merritt, Wesley, major-general.....	June 16, 1900.
Munn, Curtis E., major, surgeon.....	Feb. 2, 1900.
Nickerson, James D., captain, Seventeenth Infantry	July 9, 1900.
O'Connor, Stephen, captain, Twenty-third Infantry	April 18, 1900.
Pennington, Alexander C. M., brigadier-general ..	Oct. 17, 1899.
Potter, Carroll H., lieutenant-colonel Twenty-second Infantry.	June 9, 1900.
Sage, George E., captain, Sixth Artillery.....	April 5, 1900.
Scantling, John C., major, Second Artillery.....	Oct. 1, 1900.
Smith, Oskaloosa M., major, commissary of subsistence.	Feb. 12, 1900.
Stetson, Frederic T., first lieutenant, Third Infantry.	May 25, 1900.
Summerhayes, John W., major, quartermaster.....	Jan. 6, 1900.
Tilton, Henry R., lieutenant-colonel, deputy surgeon-general.	Feb. 1, 1900.
Viele, Charles D., colonel Fourth Cavalry.....	Jan. 28, 1900.
Volkmar, William J., colonel, assistant adjutant-general.	April 28, 1900.
Waring, John K., captain, Second Infantry.....	Nov. 15, 1899 (as major).
Wheeler, Joseph, brigadier-general.....	Sept. 10, 1900.
Whittemore, James M., colonel, Ordnance Department.	March 5, 1900.
Williston, Edward B., colonel Sixth Artillery.....	July 15, 1900.
RESIGNED.	
Copp, William M., second lieutenant, Sixth Artillery.	Sept. 1, 1900.
Foster, Charles S., second lieutenant, Ninth Infantry.	Jan. 24, 1900.
Harman, John A., first lieutenant, Sixth Cavalry ..	March 1, 1900.
Heyl, Ashton B., captain, assistant surgeon.....	Feb. 28, 1900.
Hill, Louis E., first lieutenant, Fourth Infantry....	Sept. 20, 1900.
DISMISSED.	
Martin, Edward H., second lieutenant, Fifth Artillery.	Aug. 10, 1900.
Shields, David H., chaplain.....	Jan. 31, 1900.
Van Liew, Frederick T., captain, Second Infantry ..	Nov. 20, 1899.
DROPPED FOR DEBERTION.	
Hazzard, Samuel C., first lieutenant, First Artillery.	May 31, 1900.

L.—Retirements, resignations, deaths, etc.—Continued.

Name and rank.	Date.
DROPPED AS MISSING (SUPPOSED TO BE DEAD).	
Rockefeller, Charles M., major, Sixth Infantry.....	May 12, 1900.
COMMISSION EXPIRED BY CONSTITUTIONAL LIMITATION.	
Raah, Otway W., first lieutenant, assistant surgeon.	June 7, 1900.
DEATHS, OFFICERS ON THE ACTIVE LIST.	
Ayres, James C., captain, Ordnance Department..	Dec. 8, 1899, Washington, D. C.
Benyard, William H. H., lieutenant-colonel, Corps Engineers.	Feb. 7, 1900, New York, N. Y.
Boutelle, Henry M., second lieutenant, Third Artillery.	Nov. 2, 1899, killed in action near Aliaga, P. I.
Brereton, John J., captain, Twenty-fourth Infantry (lieutenant-colonel, Thirty-third Volunteers)	Dec. 2, 1899, Santo Tomas, Luzon, P. I.
Cartwright, George S., captain, Twenty-fourth Infantry (major and quartermaster, volunteers)	Sept. 23, 1900, Havana, Cuba.
Cheney, Ward, first lieutenant, Fourth Infantry...	Jan. 7, 1900, killed in action near Imus, P. I.
Cooper, George A., second lieutenant, Fifteenth Infantry.	Sept. 17, 1900, killed in action at Mavítac, P. I.
Draper, Paul, second lieutenant, Twenty-second Infantry.	June 28, 1900, near San Antonio, P. I.
Edmunda, Frank H., major, First Infantry.....	June 18, 1900, Quemados, Cuba.
Geiger, William C., first lieutenant, Fourteenth Infantry (captain squad Philippine Cavalry).	July 2, 1900, Manila, P. I.
Godfrey, George J., captain, Twenty-Second Infantry.	June 3, 1900, killed in action, San Miguel de Mayumo, P. I.
Guthrie, John B., major, Fifteenth Infantry.....	Jan. 12, 1900, Buffalo, N. Y.
Henry, Guy V., brigadier-general.....	Oct. 27, 1899, New York, N. Y.
Higley, Brainerd S., jr., first lieutenant, assistant surgeon.	Feb. 3, 1900, Corregidor, P. I.
Hollis, Magnus O., captain, Fourth Infantry.....	Nov. 15, 1899, Manila, P. I.
Howard, Guy, captain, Quartermaster's Department (major and quartermaster, volunteers).	Oct. 22, 1899, killed in action, near Arayat, P. I.
Keyes, Maxwell, second lieutenant, Third Infantry.	Nov. 24, 1899, killed in action, Ildefonso, P. I.
Koehler, Edgar F., first lieutenant, Ninth Infantry.	Mar. 4, 1900, killed in action, Tinuba, P. I.
Lawton, Henry W., colonel, Inspector-General's Department (major-general U. S. Volunteers).	Dec. 19, 1899, killed in action, San Mateo, P. I.
Ledyard, Augustus C., first lieutenant, Sixth Infantry.	Dec. 8, 1899, killed in action, La Granja, Negros, P. I.
Liscum, Emerson H., colonel, Ninth Infantry.....	July 13, 1900, killed in action, Tientsin, China.
Little, John, captain, commissary of subsistence..	July 28, 1900, Governors Island, N. Y.
McGrath, Hugh J., captain, Fourth Cavalry.....	Nov. 7, 1899, Manila, P. I., of wounds received in action at Novalena, P. I., Oct. 8, 1899.
McQuiston, Charles, captain, Fourth Infantry.....	Sept. 15, 1900, Bacoor, P. I.
Meade, Francis K., first lieutenant, Twenty-first Infantry.	Sept. 22, 1900, Manila, P. I.
Mitchell, David D., captain, Fifteenth Infantry....	Sept. 17, 1900, killed in action at Mavítac, P. I.
Munton, Charles H., first lieutenant, Twelfth Infantry.	Feb. 11, 1900, at sea, en route from Manila, P. I.
Murphy, William L., first lieutenant, Twenty-fourth Infantry (captain, Thirty-ninth Volunteers).	Aug. 14, 1900, killed in action, Tanauan, P. I.
Ostheim, Louis, captain, First Artillery.....	Apr. 8, 1900, Chicago, Ill.
Reilly, Henry J., captain, Fifth Artillery.....	Aug. 15, 1900, killed in action, Pekin, China.
Robinson, Samuel Q., major surgeon.....	Nov. 6, 1899, Hot Springs, Ark.
Schenck, William T., first lieutenant, Twenty-fifth Infantry.	Jan. 29, 1900, killed in action near Subig, P. I.
Smith, Charles M., second lieutenant, Eighteenth Infantry.	Nov. 22, 1899, Iloilo, Panay, P. I., of wounds received in action at Pavia, P. I., Nov. 21, 1899.
Smith, Edmund D., captain, Nineteenth Infantry..	Feb. 5, 1900, Sogod, Cebu, P. I., of wounds received in action near Sogod, P. I., Feb. 4, 1900.
Spurgin, David G., first lieutenant, Twenty-first Infantry.	July 29, 1900, Manila, P. I.
Steele, Charles L., captain, Eighteenth Infantry....	Jan. 18, 1900, Fort Bayard, N. M.
Taylor, Edward, first lieutenant, Twelfth Infantry.	Dec. 26, 1899, Bautista, P. I.
Wallace, Robert B., first lieutenant, Second Cavalry (colonel Thirty-seventh Volunteers).	Mar. 13, 1900, Fort Huachuca, Ariz., of wounds received in action at Caloocan, P. I., Feb. 10, 1899.
Warwick, Oliver B., captain, Eighteenth Infantry..	Nov. 26, 1899, killed in action, Passi, Panay, P. I.
Way, Henry N., second lieutenant, Fourth Infantry.	Aug. 28, 1900, killed in action, Villavieja, P. I.
Whitney, Folliot A., major, Sixth Infantry.....	Aug. 11, 1900, Silay, Negros, P. I.
Williams, William H., first lieutenant, Twelfth Infantry.	Nov. 25, 1899, Philadelphia, Pa., of wounds received in action near Angeles, P. I., Aug. 16, 1899.
DEATHS, OFFICERS ON THE RETIRED LIST.	
Averell, William W., captain.....	Feb. 3, 1900, Bath, Steuben County, N. Y.
Bliss, Zenas R., major-general.....	Jan. 2, 1900, Washington, D. C.

L.—Retirements, resignations, deaths, etc.—Continued.

Name and rank.	Date.
DEATHS, OFFICERS ON THE RETIRED LIST—cont'd.	
Brown, Andrew M., captain	Dec. 29, 1899, San Francisco, Cal.
Casey, James S., colonel	Dec. 24, 1899, New York, N. Y.
Connolly, Thomas, captain	May 28, 1900, Lorton, Cal.
Crawford, Alexander McL., first lieutenant	Oct. 19, 1899, Hamptonburg, N. Y.
Elderkin, William A., colonel	Jan. 1, 1900, Middletown, N. Y.
Elliott, George H., colonel	Mar. 23, 1900, Marmion, Va.
Gallupe, George S., captain	Apr. 5, 1900, Pittsburg, Pa.
Gelray, Joseph W., captain	Mar. 10, 1900, Boston, Mass.
Goodloe, Archibald H., captain	Nov. 27, 1899, Lexington, Ky.
Goodwin, William P., captain	Dec. 13, 1899, Madison, Wis.
Gross, Louis H., first lieutenant	Sept. 2, 1900, Eldorado, Ill.
Hamilton, John, colonel	July 15, 1900, Brooklyn, N. Y.
Hammond, William A., brigadier-general	Jan. 5, 1900, Washington, D. C.
Huntington, David L., lieutenant-colonel	Dec. 20, 1899, Rome, Italy.
Johnson, Lewis, major	Sept. 23, 1900, Jalapa, Mexico.
King, Albert D., captain	Apr. 14, 1900, Lancaster, Ohio.
Lester, Charles H., captain	Oct. 27, 1899, New York, N. Y.
Lewis, John R., colonel	Feb. 8, 1900, Chicago, Ill.
Lyman, Wyllys, major	Feb. 1, 1900, Philadelphia, Pa.
McBlair, John H., first lieutenant	Dec. 3, 1899, Washington, D. C.
Palmer, Innis N., colonel	Sept. 10, 1900, Chevy Chase, Md.
Prime, Frederick E., major	Aug. 12, 1900, Litchfield, Conn.
Roe, Charles F., captain	July 17, 1900, Horseheads, N. Y.
Russell, Albert J., captain	Apr. 15, 1900, Sierra Madre, Cal.
Sharp, Frederick D., captain	Sept. 27, 1900, Kansas City, Mo.
Snyder, James A., captain	June 28, 1900, Washington, D. C.
Stanton, Thaddeus H., brigadier-general	Jan. 23, 1900, Omaha, Nebr.
Stiles, Daniel F., captain	Sept. 11, 1900, Oklahoma, O. T.
Tisdall, William N., captain	Nov. 18, 1899, Wayne, Pa.
Tower, Z. B., colonel	Mar. 20, 1900, Cohasset, Mass.
Towle, George F., captain	June 21, 1900, London, England.
Upham, Frank K., captain	Oct. 17, 1899, Santa Monica, Cal.
Wells, Daniel T., major	Nov. 27, 1899, Detroit, Mich.
Wilkins, John D., colonel	Feb. 20, 1900, Washington, D. C.

Officers of the United States Volunteers who have died between July 1, 1899, and October 1, 1900.

Name and rank.	Date.
Armstrong, Frank C., major-surgeon, Thirty-second Infantry.	Dec. 4, 1899, Manila, P. I.
Bentley, George H., captain, Forty-seventh Infantry.	Aug. 28, 1900, Camalig, P. I., of wounds received in action near Camalig, Aug. 21, 1900.
Bowman, Daniel T., first lieutenant, Thirty-seventh Infantry.	Jan. 9, 1900, Manila, P. I.
Brown, William, captain, Forty-fifth Infantry.....	Aug. 17, 1900, killed in action, Salvacion, P. I.
Burchard, Easton, first lieutenant, assistant surgeon, Fortieth Infantry.	Sept. 2, 1900, transport Grant, Nagasaki, Japan.
Cilley, Jonathan, first lieutenant, Forty-third Infantry.	June 13, 1900, Manila, P. I.
Crenshaw, Frank F., captain, Twenty-eighth Infantry.	Aug. 28, 1900, Alanta, Ga., of wounds received in action at Papaya, P. I., June 5, 1900.
Danner, James D., second lieutenant, Twenty-eighth Infantry.	Sept. 27, 1900, near Manila P. I.
Davis, Julian L., second lieutenant, Thirty-sixth Infantry.	Nov. 11, 1899, killed in action near Bamban, P. I.
Edmonston, Raphael A., first lieutenant, assistant surgeon, Thirty-fourth Infantry.	June 2, 1900, Manila, P. I.
Evans, John H., first lieutenant, Forty-third Infantry.	May 11, 1900, killed in action, Matagiano, Samar, P. I.
Fernald, Roy L., second lieutenant, Twenty-sixth Infantry.	Sept. 1, 1900, Jalaur River, near Pototan, P. I.
French, Charles, captain, Thirty-sixth Infantry	Oct. 31, 1899, Manila, P. I., of wounds received in action at Florida Blanca, P. I., Oct. 29, 1899.
Galleher, John B., first lieutenant, Fortieth Infantry.	Feb. 23, 1900, transport Tartar, San Miguel Bay, P. I., of wounds received in action at Libmanan, P. I., Feb. 20, 1900.
Heatwole, Joseph H., major, commissary of subsistence.	July 6, 1899, Santiago, Cuba.
Huston, Robert B., captain, Forty-seventh Infantry.	July 6, 1900, Manila, P. I.
Jackson, George L., second lieutenant, Forty-seventh Infantry.	May 21, 1900, Manila, P. I.

Officers of the United States Volunteers who have died, etc.—Continued.

Name and rank.	Date.
Langworthy, Samuel R., captain, Thirty-fifth Infantry.	Feb. 21, 1900, Baliuag, Luzon, P. I.
Lee, Orison P., captain, Forty-fifth Infantry	June 10, 1900, near Albay, P. I.
Logan, John A., major, Thirty-third Infantry	Nov. 11, 1899, killed in action, San Jacinto, P. I.
Luna, Maximiliano, first lieutenant, Thirty-fourth Infantry.	Nov. 15, 1899, Agno River, P. I.
McLaughlin, James B., second lieutenant, signal officer.	July 6, 1899, Santiago, Cuba.
McNabb, Lewis M., captain, Forty-ninth Infantry..	Nov. 7, 1899, Jefferson Barracks, Mo.
Toncray, James P., first lieutenant, Thirty-sixth Infantry.	Feb. 7, 1900, Manila, P. I.
Wagner, Max, second lieutenant, Twenty-sixth Infantry.	Oct. 1, 1900, killed in action near Pavia, P. I.
Waugh, John R., second lieutenant, Thirty-ninth Infantry.	Feb. 27, 1900, Manila, P. I.
Weber, Louis P., second lieutenant, Forty-second Infantry.	Mar. 9, 1900, Calamba, P. I.
Webster, Horace, first lieutenant, Forty-second Infantry.	July 7, 1900, Manila, P. I.
White, Grant A., first lieutenant, Thirty-third Infantry.	Apr. 10, 1900, Angaque, P. I.
Wing, Eugene G., second lieutenant, Thirty-sixth Infantry.	Jan. 24, 1900, Manila, P. I.

H. C. CORBIN,
Adjutant-General, U. S. A.

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 1, 1900.

M.—Deaths in the Philippine Islands between February 4, 1899, and June 30, 1900.

	Killed.		Of wounds.		Disease.		Acci- dent.		Drowned.		Suicide.		Murder or homi- cide.		Total.		Wounded	
	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.	Officers.	Enlisted men.
Regulars	18	179	5	57	8	606	1	29	1	76	2	16	....	16	35	979	42	791
Volunteers....	15	297	4	104	11	455	...	20	3	33	4	7	....	4	37	920	102	1,285
Grand total..	33	476	9	161	19	1,061	1	49	4	109	6	23	....	20	72	1,899	144	2,076

H. C. CORBIN,
Adjutant-General, United States Army.

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 1, 1900.

76 REPORT OF LIEUT. GENERAL COMMANDING THE ARMY.

N.—Table showing strength of volunteer forces called into service of the United States dur—

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
Major-generals				
Brigadier-generals				
Adjutant-General's Department				
Inspector-General's Department				
Judge-Advocate-General's Department				
Quartermaster - General's Department				
Subsistence Department				
Medical Department				
Pay Department				
Engineer Department				
Ordnance Department				
Signal Corps				
Total general officers and staff				
Alabama Volunteer Infantry:				
First	May 9-24, 1898 ..	Mobile, Ala.	Oct. 31, 1898	Birmingham, Ala.
Second	May 16-June 14, 1898.	do	do	Montgomery, Ala.
Third ¹	June 4-Aug. 5, 1898.	do	Mar. 20, 1899	Anniston, Ala.
Arkansas Volunteer Infantry:				
First	May 14-20, 1898 ..	Little Rock, Ark.	Oct. 25, 1898	Little Rock, Ark.
Second	May 14-25, 1898 ..	do	Feb. 25, 1899	Anniston, Ala.
California Volunteer Infantry:				
First	May 6, 1898	San Francisco, Cal.	Sept. 21, 1899	San Francisco, Cal.
Sixth	May 11, 1898	do	Dec. 15, 1898	Fort Point, Cal.
Seventh	May 9, 1898	do	Dec. 2, 1898	Los Angeles, Cal.
Eighth	July 6-9, 1898	Fruitville, Cal.	Feb. 6, 1899	California and Washington.
California Volunteer Artillery:				
Field and staff	May 9, 1898	San Francisco, Cal.	Sept. 21, 1899	San Francisco, Cal.
Battery A	do	do	do	do
Battery B	do	do	Jan. 30, 1899	Angel Island, Cal.
Battery C	May 10, 1898	do	Feb. 3, 1899	Fort Canby, Wash.
Battery D	do	do	Sept. 21, 1899	San Francisco, Cal.
Colorado:				
First Volunteer Infantry.	May 1, 1898	Denver, Colo.	Sept. 8, 1899	do
First Volunteer Battery.	July 18, 1898	do	Nov. 7, 1898	Fort Hancock, N.J.
Connecticut Volunteer Infantry:				
First	May 17-July 14, 1898.	Connecticut	Oct. 31, 1898	Hartford, Conn.
Third	July 2-6, 1898	Niantic, Conn.	Mar. 20, 1899	Savannah, Ga.
Connecticut Volunteer Artillery:				
Light Battery A	May 19, 1898	do	Oct. 25, 1898	New Haven, Conn.
Heavy Battery B	do	do	Dec. 20, 1898	Bridgeport, Conn.
Heavy Battery C	do	do	Oct. 29, 1898	New Haven, Conn.
District of Columbia Volunteer Infantry:				
First	May 10-17, 1898 ..	Washington, D. C.	Nov. 20, 1898	Washington, D. C.

¹ Colored troops.

ing the war with Spain, with losses from all causes, etc., as shown by muster-out rolls.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.					
						Officers.					
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.		
Officers.	Men.	Officers.	Men.	Officers.	Men.				Killed in action.	Of wounds.	Accident.
25	.....	4	.....	25	.....	8	13	.....	.....	.....	.....
106	.....	16	.....	106	.....	8	80	.....	.....	2	.....
125	.....	10	.....	125	.....	6	108	.....	.....	1	.....
41	.....	10	.....	41	.....	3	27	.....	.....	1	.....
11	.....	5	.....	11	.....	.....	6	.....	.....	.....	.....
164	.....	87	.....	164	.....	.....	74	.....	.....	2	.....
120	.....	20	.....	120	.....	.....	95	.....	1	3	.....
143	.....	84	.....	143	.....	.....	108	.....	.....	1	.....
93	.....	51	.....	93	.....	1	60	.....	.....	1	.....
28	.....	.....	.....	28	.....	2	26	.....	.....	.....	.....
26	.....	.....	.....	26	.....	2	23	.....	.....	1	.....
128	1,329	37	.....	128	1,329	3	83	.....	1	3	1
a 1,010	1,329	a 254	.....	1,010	1,329	33	703	.....	3	15	1
48	941	49	1,089	55	1,596	3	2	.....	.....	1	.....
47	935	49	926	50	1,090	.....	1	.....	.....	.....	.....
46	1,185	46	992	53	1,178	.....	7	.....	.....	.....	.....
46	966	46	1,227	48	1,421	.....	2	.....	.....	.....	.....
45	968	46	822	60	1,307	.....	13	.....	.....	1	.....
51	966	50	999	71	1,317	.....	20	.....	.....	1	.....
31	641	31	591	34	858	.....	3	.....	.....	.....	.....
50	979	50	1,169	52	1,304	.....	2	.....	.....	.....	.....
35	1,250	46	1,211	49	1,300	.....	3	.....	.....	.....	.....
3	1	3	1	4	1	.....	1	.....	.....	.....	.....
4	146	4	137	6	207	.....	2	.....	.....	.....	.....
4	146	4	168	6	200	.....	2	.....	.....	.....	.....
4	146	4	176	4	200	.....	.....	.....	.....	.....	.....
4	146	4	135	6	200	.....	2	.....	.....	.....	.....
46	970	46	938	67	1,261	7	13	.....	1	.....	.....
3	106	3	103	3	106	.....	.....	.....	.....	.....	.....
42	798	45	1,230	48	1,265	.....	3	.....	.....	.....	.....
45	1,232	45	1,106	61	1,291	.....	16	.....	.....	.....	.....
5	120	5	157	5	172	.....	.....	.....	.....	.....	.....
4	146	4	174	4	203	.....	.....	.....	.....	.....	.....
4	140	4	184	6	196	.....	1	.....	.....	1	.....
49	922	49	810	53	987	3	3	.....	.....	1	.....

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.														
	Officers.				Enlisted men.										
	Died.			Total.	Transferred.	Discharged.			Died.						
	Drowned.	Suicide.	Murdered.			Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Drowned.	Suicide.	Murdered or homicide.
Major-generals.....				21											
Brigadier-generals.....				90											
Adjutant-General's Department.....				115											
Inspector-General's Department.....				31											
Judge-Advocate-General's Department.....				6											
Quartermaster - General's Department.....				77											
Subsistence Department.....		1		100											
Medical Department.....				109											
Pay Department.....				62											
Engineer Department.....				28											
Ordnance Department.....				26											
Signal Corps.....				91		9		1,297			19	3			
Total general officers and staff.....		1		756		9		1,297			19	3			
Alabama Volunteer Infantry:															
First.....				6	391	31		38			15				
Second.....				1	19	35		38			15	2	1		
Third ¹				7		12	4	71			7	1			3
Arkansas Volunteer Infantry:															
First.....				2	76	55		19			22	2			
Second.....				14	59	60	2	294			27				
California Volunteer Infantry:															
First.....				21	61	43	1	170	8	1	24	2	1		
Sixth.....				3	7	23		230			3			1	
Seventh.....				2	10	9		91			20				
Eighth.....				3	16	36		21			7			1	1
California Volunteer Artillery:															
Field and staff.....				1											
Battery A.....				2	4	8	3	45			3				
Battery B.....				2	2	8		8							
Battery C.....					2	9	8	1			1				
Battery D.....				2	2	9		49			2				
Colorado:															
First Volunteer Infantry.....				21	32	53	5	195	5	6	22		1	1	
First Volunteer Battery.....								3							
Connecticut Volunteer Infantry:															
First.....				3	3	6		5			18				
Third.....				16	8	9	11	92			15				
Connecticut Volunteer Artillery:															
Light Battery A.....					1	5		8			1				
Heavy Battery B.....					1	2		25							
Heavy Battery C.....				2		2	1	2			4				
District of Columbia Volunteer Infantry:															
First.....				4	32	8		65			22				

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
		2						
		1						
		1						
		1						
1	1,329							
1	1,329							
32	507							
54	164							
88	186							
20	194							
43	485							
7	318	3	45	Philippine Islds	May 25, 1898	June 30, 1898	July 26, 1899	Aug. 24, 1899
3	267							
5	135							
7	89							
7	70			Philippine Islds	Oct. 19, 1898	Nov. 22, 1898	July 26, 1899	Aug. 24, 1899
14	32			do	do	do	do	do
8	24							
3	65	2		Philippine Islds	Oct. 17, 1898	Nov. 21, 1898	July 26, 1899	Aug. 24, 1899
3	323	4	37	do	June 15, 1898	July 16, 1898	July 17, 1899	Aug. 16, 1899
	3							
3	35							
51	186							
	15							
1	29							
3	12							
	127			Cuba	July 6, 1898 ¹	July 9, 1898 ¹	Aug. 23, 1898 ¹	Aug. 28, 1898 ¹

¹ Company H sailed to Porto Rico July 15, 1898; arrived July 25, 1898; sailed from Porto Rico September 8, 1898; arrived New York, September 16, 1898.

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
Delaware Volunteer Infantry:				
First ¹	May 9-19, 1898...	Middletown, Del..	Nov. 16, 1898	Wilmington, Del..
Do. ²	do.....	do.....	Dec. 19, 1898	do.....
Florida Volunteer Infantry:				
First ³	May 20-25, 1898...	Tampa, Fla.....	Dec. 3, 1898	Tallahassee, Fla...
Do. ⁴	do.....	do.....	Jan. 27, 1899	Huntsville, Ala....
Georgia Volunteer Infantry:				
First.....	May 11-14, 1898...	Griffin, Ga.....	Nov. 18, 1898	Macon, Ga.....
Second.....	do.....	do.....	Nov. 22-Dec. 8, 1898.	Georgia.....
Third.....	Aug. 24, 1898.....	do.....	Apr. 22, 1899	Augusta, Ga.....
Georgia Light Artillery:				
Batteries A and B.....	May 13-15, 1898...	do.....	Oct. 17, 1898	Griffin, Ga.....
Idaho Volunteer Infantry:				
First.....	May 7-18, 1898...	Boise, Idaho.....	Sept. 25, 1899	San Francisco, Cal.
Illinois Volunteer Infantry:				
First.....	May 13, 1898.....	Springfield, Ill....	Nov. 17, 1898	Chicago, Ill.....
Second.....	May 16, 1898.....	do.....	Apr. 26, 1899	Augusta, Ga.....
Third.....	May 7-10, 1898...	do.....	Jan. 13-24, 1899.	Illinois.....
Fourth.....	May 19-20, 1898...	do.....	May 2, 1899	Augusta, Ga.....
Fifth.....	May 4-9, 1898.....	do.....	Oct. 16, 1898	Springfield, Ill....
Sixth.....	May 11, 1898.....	do.....	Nov. 25, 1898	do.....
Seventh.....	May 18, 1898.....	do.....	Oct. 20, 1898	Chicago, Ill.....
Eighth ⁵	July 12-21, 1898...	do.....	Apr. 8, 1899	do.....
Ninth.....	July 4-11, 1898...	do.....	May 20, 1899	Augusta, Ga.....
Illinois Volunteer Cavalry:				
First.....	May 20-21, 1898...	do.....	Oct. 11, 1898	Fort Sheridan, Ill..
Illinois Light Artillery:				
Battery A.....	May 12, 1898.....	Springfield, Ill....	Nov. 25, 1898	Danville, Ill.....
Indiana Volunteer Infantry:				
One hundred and fifty-seventh.	May 10, 1898.....	Indianapolis, Ind..	Nov. 1, 1898	Indianapolis, Ind..
One hundred and fifty-eighth.	do.....	do.....	Nov. 4, 1898	do.....
One hundred and fifty-ninth.	May 12, 1898.....	do.....	Nov. 23, 1898	do.....
One hundred and sixtieth.	do.....	do.....	Apr. 25, 1899	Savannah, Ga.....
One hundred and sixty-first.	July 11-13, 1898...	do.....	Apr. 30, 1899	do.....
First ⁶ (Companies A and B).	July 15, 1898.....	do.....	Jan. 20, 1899	Chickamauga, Ga..
Indiana Volunteer Batteries:				
Twenty-seventh.....	May 10, 1898.....	do.....	Nov. 25, 1898	Indianapolis, Ind..
Twenty-eighth.....	May 12, 1898.....	do.....	Oct. 31, 1898	do.....
Iowa Volunteer Infantry:				
Forty-ninth.....	June 2, 1898.....	Des Moines, Iowa..	May 13, 1899	Savannah, Ga.....
Fiftieth.....	May 17-18, 1898...	do.....	Nov. 30, 1898	Des Moines, Iowa..
Fifty-first.....	May 30, 1898.....	do.....	Nov. 2, 1899	San Francisco, Cal.
Fifty-second.....	May 25, 1898.....	do.....	Oct. 30, 1898	Des Moines, Iowa..
Iowa Volunteer Batteries:				
Fifth.....	July 8, 1898.....	do.....	Sept. 5, 1898	do.....
Sixth.....	do.....	do.....	do.....	do.....
Kansas Volunteer Infantry:				
Twentieth.....	May 9-13, 1898...	Topeka, Kans.....	Oct. 28, 1899	San Francisco, Cal.
Twenty-first.....	May 12-14, 1898...	do.....	Dec. 10, 1898	Fort Leavenworth, Kans.

¹ Companies C, D, E, F, H, I, K, L.² Companies A, C, E, H, I, K, L, M.³ Companies B, D, F, G.⁴ Companies A, B, G, M.⁵ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.						
						Officers.						
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.			
Killed in action.	Of wounds.	Disease.	Accident.									
Officers.	Men.	Officers.	Men.	Officers.	Men.							
47	969	43	836	51	977		8					
48	956	48	1,135	54	1,296		5				1	
46	960	46	852	50	1,281		4					
45	940	45	989	50	1,283		5					
43	1,243	46	945	57	1,321		10				1	
8	246	7	308	8	833		1					
32	644	32	444	50	678		17		1			
50	979	49	1,185	50	1,292		1					
50	980	48	1,006	58	1,350	1	7				2	
47	968	50	1,223	52	1,317		1				1	
50	994	49	960	66	1,306	1	15	1				
50	974	48	1,212	53	1,256		5					
50	973	49	1,224	53	1,284		2				2	
50	974	49	1,260	52	1,339		3					
43	1,226	46	1,180	49	1,244		3					
45	1,276	45	1,095	52	1,319		6					
50	974	50	1,158	57	1,218	2	5					
4	120	4	164	5	173		1					
50	972	50	1,223	54	1,258		2				2	
50	976	50	1,223	52	1,294		2					
50	977	49	1,240	52	1,317		2				1	
50	973	50	1,081	57	1,308		7					
46	1,228	46	1,153	52	1,411	1	5					
6	196	6	198	6	211							
4	121	4	168	4	173							
4	121	4	172	4	175							
50	780	49	953	56	1,284		5				2	
50	751	48	1,223	53	1,322	1	4					
50	789	50	780	60	1,333		9				1	
50	822	49	1,235	55	1,313		5					
3	106	3	106	3	106							
3	106	3	106	3	106							
46	964	46	720	92	1,364		43		3			
46	958	46	1,184	55	1,292		8				1	

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.												
	Officers.				Enlisted men.								
	Died.		Total.	Transferred.	Discharged.			Died.					
	Drowned.	Suicide.			Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Drowned.	Suicide.
Delaware Volunteer Infantry:													
First.....			8	2	8	3	74			8			
Do.....													
Florida Volunteer Infantry:													
First ¹			6	24	31	1	57			27			2
Do.....													
Georgia Volunteer Infantry:													
First.....			4	49	9	1	835			9	2		
Second.....			5	79	42	2	132			15			
Do.....													
Third.....			11		22	2	277			24	1		
Georgia Light Artillery:													
Batteries A and B.....			1	3	6		10			2			
Idaho Volunteer Infantry:													
First.....			18	22	25	8	156	4	2	13	1	1	
Illinois Volunteer Infantry:													
First.....			1	5	9		9			84			
Second.....			10	86	70	1	163			22			
Third.....			2	21	10		20			42			
Fourth.....			17	55	54		210			24	1		
Fifth.....			5	1	10		9			17			
Sixth.....			4	21	11	1	4			22			
Seventh.....			3	53	5		13			2			
Eighth ¹			8		6	3	27			16	2		1
Ninth.....			7	31	46	1	113			27	2		
Illinois Volunteer Cavalry:													
First.....			7	12	14		11			16	1		
Illinois Light Artillery:													
Battery A.....			1		4		3			2			
Indiana Volunteer Infantry:													
One hundred and fifty-seventh.....			4		10		5			16	1		
One hundred and fifty-eighth.....			2	33	18		7			10			
One hundred and fifty-ninth.....			3	36	12		11			10			
One hundred and sixtieth.....			7	69	59		117			11			1
One hundred and sixty-first.....			6	73	30		131			18	1		
First ¹ (Companies A and B).....				1			1						
Indiana Volunteer Batteries:													
Twenty-seventh.....				1	2		2						
Twenty-eighth.....				1	1					1			
Iowa Volunteer Infantry:													
Forty-ninth.....			7	10	11		255			52	1		
Fiftieth.....			5	34	10		21			32			
Fifty-first.....	1		10	61	89		362	1		39			
Fifty-second.....			6	28	10		4			35			
Iowa Volunteer Batteries:													
Fifth.....													
Sixth.....													
Kansas Volunteer Infantry:													
Twentieth.....			46	80	145	4	346	19	11	35			
Twenty-first.....			9	35	12		22			20			

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
46	141							
19	161							
24	429							
24	294							
50	376			Cuba	Jan. 14, 1899	Jan. 18, 1899	Mar. 25, 1899	Mar. 29, 1899
4	25							
2	234	2	25	Philippine Islds	June 27, 1898	July 31, 1898	July 30, 1899	Aug. 29, 1899
2	107			Cuba	July 1, 1898	July 9, 1898	Aug. 25, 1898	Aug. 29, 1898
1	344			do	Dec. 9, 1898	Dec. 13, 1898	Mar. 30, 1899	Apr. 3, 1899
1	94			Porto Rico	July 28, 1898	July 31, 1898	Nov. 4, 1898	Nov. 9, 1898
4	348			Cuba	Jan. 3, 1899	Jan. 7, 1899	Apr. 4, 1899	Apr. 5, 1899
7	44							
1	60			Porto Rico	July 10, 1898	July 25, 1898	Sept. 7, 1898	Sept. 13, 1898
6	79							
9	64			Cuba	Aug. 11, 1898	Aug. 16, 1898	Mar. 10, 1899	Mar. 15, 1899
4	224			do	Jan. 3, 1899	Jan. 5, 1899	Apr. 19, 1899	Apr. 21, 1899
6	60							
	9			Porto Rico	July 28, 1898	Aug. 4, 1898	Sept. 7, 1898	Sept. 13, 1898
3	35							
3	71							
8	77							
15	272			Cuba	Jan. 8, 1899	Jan. 10, 1899	Mar. 28, 1899	Mar. 29, 1899
5	258			do	Dec. 13, 1898	Dec. 15, 1898	Mar. 29, 1899	Mar. 31, 1899
11	13							
	5			Porto Rico	July 28, 1898	Aug. 4, 1898	Sept. 8, 1898	Sept. 15, 1898
	3							
2	331			Cuba	Dec. 19, 1898	Dec. 22, 1898	Apr. 5, 1899	Apr. 11, 1899
2	99							
1	553	2	34	Philippine Islds	Nov. 8, 1898	Dec. 7, 1898	Sept. 22, 1899	Oct. 22, 1899
1	78							
4	644	10	120	Philippine Islds	Oct. 27, 1898	Nov. 30, 1898	Sept. 8, 1899	Oct. 10, 1899
19	108							

84 REPORT OF LIEUT. GENERAL COMMANDING THE ARMY.

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
Kansas Volunteer Infantry—Continued.				
Twenty-second.....	May 11-17, 1896..	Topeka, Kans.....	Nov. 3, 1896	Fort Leavenworth, Kans.
Twenty-third.....	July 2-19, 1898 ..	do	Apr. 10, 1899	do
Kentucky Volunteer Infantry:				
First.....	June 1-10, 1898..	Lexington, Ky	Feb. 24, 1899	Louisville, Ky
Second.....	May 14-25, 1898..	do	Oct. 31, 1898	Lexington, Ky
Third.....	May 21-31, 1898..	do	May 16, 1899	Savannah, Ga
Fourth.....	July 4-27, 1898..	do	Feb. 12, 1899	Anniston, Ala
Kentucky Volunteer Cavalry:				
A and B.....	May 28, 1898.....	Lexington, Ky	Oct. 14, 1898	Lexington, Ky
Louisiana Volunteer Infantry:				
First.....	May 8-18, 1898..	New Orleans, La....	Oct. 3, 1898	Jacksonville, Fla ..
Second.....	May 11-26, 1898..	do	Apr. 18, 1899	Savannah, Ga
Louisiana Volunteer Batteries:				
A, B, and C.....	July 6-7, 1898 ..	New Orleans, La....	Nov. 12, 1898	New Orleans, La....
Maine Volunteer Infantry:				
First.....	May 10-26, 1898..	Augusta, Me.....	Oct. 25-Dec. 13, 1898.	Maine
Maine Volunteer Artillery:				
Batteries A, B, C, and D	May 17-July 20, 1898.	do	Mar. 31, 1899	Savannah, Ga
Maryland Volunteer Infantry:				
First.....	May 16-June 29, 1898.	Maryland	Feb. 28, 1899	Augusta, Ga
Fifth.....	May 14, 1898	Pimlico, Md	Oct. 22, 1898	Baltimore, Md.....
Massachusetts Volunteer Infantry:				
Second.....	May 8-10, 1898..	South Framing- ham, Mass.	Nov. 3, 1898	Springfield, Mass..
Fifth.....	June 30-July 2, 1898.	do	Mar. 31, 1899	Greenville, S. C....
Sixth.....	May 12-13, 1898..	do	Jan. 21, 1899	Boston, Mass
Elighth.....	May 11-14, 1898..	do	Apr. 28, 1899	do
Ninth.....	May 9-12, 1898..	do	Nov. 26, 1898	do
Massachusetts Volunteer Artillery:				
First.....	May 9, 1898.....	Fort Warren, Mass.	Nov. 14, 1898	Massachusetts
Michigan Volunteer Infantry:				
Thirty-first.....	May 8-11, 1898 ..	Island Lake, Mich.	May 17, 1899	Savannah, Ga
Thirty-second.....	May 11-14, 1898 ..	do	Oct. 25-Nov. 9, 1898.	Michigan
Thirty-third.....	May 13-20, 1898 ..	do	Nov. 9, 1898— Jan. 6, 1899.	do
Thirty-fourth.....	May 17-June 2, 1898.	do	Nov. 24, 1898— Jan. 2, 1899.	do
Thirty-fifth.....	July 9-25, 1898 ..	do	Mar. 31, 1899	Augusta, Ga
Minnesota Volunteer Infantry:				
Twelfth.....	May 6-7, 1898	St. Paul, Minn	Nov. 5, 1898	New Ulm, Minn
Thirteenth.....	May 7, 1898	do	Oct. 3, 1899	San Francisco, Cal.
Fourteenth.....	May 8, 1898	do	Nov. 18, 1898	St. Paul, Minn
Fifteenth.....	July 9-18, 1898 ..	do	Mar. 27, 1899	Augusta, Ga
Mississippi Volunteer Infantry:				
First.....	May 16-26, 1898 ..	Jackson, Miss.....	Dec. 20, 1898	Columbia, Tenn
Second.....	May 30-June 8, 1898.	do	do	do
Third.....	July 22-Aug. 4, 1898.	do	Mar. 17, 1899	Albany, Ga

1 Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.					
						Officers.					
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.		
Killed in action.	Of wounds.	Disease.	Accident.								
Officers.	Men.	Officers.	Men.	Officers.	Men.						
46	963	46	1,230	50	1,288	.....	1	1	.....	2	.....
29	850	28	823	32	851	.....	3	.....	.....	1	.....
48	1,251	47	1,222	51	1,283	.....	4	.....	.....	.....	.....
45	941	50	1,266	54	1,374	1	3	.....	.....	.....	.....
46	945	50	964	57	1,254	.....	7	.....	.....	.....	.....
41	1,268	46	1,117	49	1,286	.....	3	.....	.....	.....	.....
6	154	6	197	6	200	.....	.....	.....	.....	.....	.....
46	977	42	1,114	50	1,330	1	3	.....	.....	4	.....
46	960	45	797	63	1,146	1	14	.....	.....	3	.....
9	318	9	312	9	318	.....	.....	.....	.....	.....	.....
46	979	46	1,211	51	1,301	1	2	.....	.....	2	.....
15	465	15	457	16	525	.....	1	.....	.....	.....	.....
43	1,044	49	1,070	63	1,307	.....	14	.....	.....	.....	.....
48	985	49	1,229	51	1,290	.....	1	.....	.....	1	.....
47	896	44	797	47	896	.....	.....	.....	1	2	.....
41	1,280	46	1,153	60	1,268	.....	14	.....	.....	.....	.....
47	896	46	1,172	54	1,280	.....	8	.....	.....	.....	.....
47	896	46	1,161	59	1,358	.....	12	.....	.....	1	.....
47	896	46	1,151	58	1,281	1	2	.....	.....	4	.....
48	701	46	666	48	709	1	1	.....	.....	.....	.....
47	978	46	991	58	1,394	.....	10	.....	.....	2	.....
47	966	46	1,234	48	1,333	.....	2	.....	.....	.....	.....
44	978	47	1,159	51	1,259	.....	3	.....	.....	1	.....
50	980	45	1,153	47	1,287	.....	1	.....	.....	1	.....
45	1,283	47	1,118	58	1,306	.....	10	.....	.....	1	.....
50	982	49	1,216	55	1,286	.....	5	.....	.....	1	.....
50	979	51	966	61	1,311	.....	8	.....	.....	1	.....
50	981	50	1,180	61	1,286	.....	11	.....	.....	.....	.....
46	1,280	46	1,110	52	1,268	.....	6	.....	.....	.....	.....
44	947	45	982	49	1,092	.....	2	.....	.....	2	.....
46	949	46	1,222	48	1,333	.....	2	.....	.....	.....	.....
18	616	24	491	28	611	.....	4	.....	.....	.....	.....

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.													
	Officers.				Enlisted men.									
	Died.			Total.	Transferred.	Discharged.				Died.				
	Drowned.	Suicide.	Murdered.			Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Drowned.	Suicide.
														Murdered or homicide.
Kansas Volunteer Infantry—Continued.														
Twenty-second				4	14	15	2	10			12			
Twenty-third ¹				4		5	3	7			11	1		1
Kentucky Volunteer Infantry:														
First				4	16	1		13			27	1		
Second				4	32	4		33			27			
Third				7	27	60	8	129			17	2		1
Fourth				3	44	29		22			18			1
Kentucky Volunteer Cavalry:														
A and B					1	1								
Louisiana Volunteer Infantry:														
First				8	189	40		14			10	1	1	1
Second				18	24	122	5	140			18	1		
Louisiana Volunteer Batteries:														
A, B, and C						4					1			
Maine Volunteer Infantry:														
First				5	8	10	1	8			39			
Maine Volunteer Artillery:														
Batteries A, B, C, and D				1	14	6		22			10			
Maryland Volunteer Infantry:														
First				14	13	32	6	120			12	1		
Fifth				2	15	8	1	15			19			
Massachusetts Volunteer Infantry:														
Second				3	1			4	4	4	86			
Fifth				14		28		59			13			
Sixth				8	75	4		4			25			
Eighth				13	25	54	1	72			30			
Ninth				7	8	2		8			110	1		
Massachusetts Volunteer Artillery:														
First				2	2	7		33			1			
Michigan Volunteer Infantry:														
Thirty-first				12	20	25	4	316			20			
Thirty-second				2	42	16		19			20			
Thirty-third				4	21	13		5	2	1	57			
Thirty-fourth				2	45	1		7			79	1	1	
Thirty-fifth				11	32	38		79			24			
Minnesota Volunteer Infantry:														
Twelfth				6	24	10		12			18			1
Thirteenth				10	28	45	2	236	4	2	33	2	1	
Fourteenth				11	26	12		56			9			
Fifteenth				6	12	47	3	67			20			
Mississippi Volunteer Infantry:														
First				4	13	14	1	24			29	1		
Second				2	35	2		45			20			
Third				4	20	12		46			7			

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
5	58							
	28			Cuba	Aug. 25, 1898	Aug. 31, 1898	Mar. 1, 1899	Mar. 5, 1899
3	61			Porto Rico	Aug. 3, 1898	Aug. 10, 1898	Dec. 5, 1898	Dec. 12, 1898
12	108			Cuba	Jan. 18, 1899	Jan. 21, 1899	Apr. 8, 1899	Apr. 10, 1899
56	300							
60	169							
1	3							
10	216							
44	349			Cuba	Dec. 24, 1898	Dec. 27, 1898	Mar. 20, 1899	Mar. 22, 1899
1	6							
24	90							
16	68			Cuba	Jan. 17, 1899	Jan. 20, 1899	Mar. 9, 1899	Mar. 11, 1899
58	237							
3	61							
	99	3	41	Cuba	June 14, 1898	June 22, 1898	Aug. 21, 1898	Aug. 25, 1898
15	115							
	108	1	3	Porto Rico	July 8, 1898	July 25, 1898	Oct. 21, 1898	Oct. 27, 1898
15	197			Cuba	Jan. 7, 1899	Jan. 10, 1899	Apr. 4, 1899	Apr. 9, 1899
1	130		3	do	June 26, 1898	July 1, 1898	Aug. 26, 1898	Sept. 4, 1898
	48							
18	403			Cuba	Jan. 27, 1899	Feb. 1, 1899	Apr. 13, 1899	Apr. 16, 1899
2	99							
1	100		10	Cuba	June 23, 1898	June 27, 1898	Aug. 21, 1898	Aug. 26, 1898
	134			do	June 26, 1898	June 30, 1898	Aug. 17, 1898	Aug. 23, 1898
15	188							
5	70							
2	355	6	68	Philippine Islds	June 27, 1898	July 31, 1898	Aug. 11, 1899	Sept. 7, 1899
3	106							
9	158							
28	110							
9	111							
35	120							

N.—Table showing strength of volunteer forces called into service of the United States during

Organisation.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
Missouri Volunteer Infantry:				
First	May 13, 1898	Jefferson Barracks, Mo.	Oct. 31, 1898	St. Louis, Mo.
Second	May 12, 1898	Jefferson Barracks, Mo.	Feb. 27-Mar. 8, 1899.	Albany, Ga.
Third	May 14, 1898	do	Nov. 7, 1898	Kansas City, Mo. ..
Fourth	May 16, 1898	do	Feb. 10, 1899	Greenville, S. C. ...
Fifth	May 18, 1898	do	Nov. 9, 1898	Kansas City, Mo. ...
Sixth	July 20-Aug. 6, 1898.	do	May 10, 1899	Savannah, Ga.
Missouri Light Artillery:				
Battery A.	May 9, 1898	do	Nov. 30, 1898	Jefferson Barracks, Mo.
Montana Volunteer Infantry:				
First	May 5-10, 1898 ..	Helena, Mont.	Oct. 17, 1899	San Francisco, Cal.
Nebraska Volunteer Infantry:				
First	May 9-10, 1898 ..	Lincoln, Nebr.	Aug. 23, 1899	do
Second	May 9-14, 1898 ..	do	Oct. 24, 1898	Omaha, Nebr.
Third	July 1-17, 1898 ..	Omaha, Nebr.	May 11, 1899	Augusta, Ga.
Nevada Volunteer Infantry:				
Battalion	July 19-22, 1898..	Carson City, Nev...	Oct. 29, 1898	Carson City, Nev. ..
Nevada Volunteer Cavalry:				
First Troop.	June 8, 1898	Cheyenne, Wyo.	Nov. 15, 1899	San Francisco, Cal.
New Hampshire Volunteer Infantry:				
First	May 8-14, 1898...	Concord, N. H.	Oct. 31, 1898	Concord, N. H.
New Jersey Volunteer Infantry:				
First	May 5-12, 1898...	Sea Girt, N. J.	Nov. 4, 1898	Newark, N. J.
Second	May 13-15, 1898..	do	Nov. 17, 1898	Paterson, N. J.
Third	May 11-13, 1898..	do	Feb. 11, 1899	Athens, Ga.
Fourth	July 7-24, 1898 ..	do	Apr. 6, 1899	Greenville, S. C.
New York Volunteer Infantry:				
First	May 20, 1898	Hempstead, N. Y. ..	Feb. 20-26, 1899.	New York
Second	May 16-17, 1898..	do	Oct. 25-Nov. 1, 1898.	do
Third	May 17, 1898	do	Nov. 30-Dec. 10, 1898.	do
Eighth	May 14-19, 1898..	Peekakill, N. Y.	Nov. 3, 1898	do
Ninth	May 17-21, 1898..	do	Nov. 15, 1898	do
Twelfth	May 13, 1898	do	Apr. 20, 1899	do
Fourteenth	May 13-16, 1898..	Hempstead, N. Y. ..	Oct. 27, 1898	Brooklyn, N. Y.
Twenty-second	May 24, 1898	do	Nov. 23, 1898	Fort Slocum, N. Y. ..
Forty-seventh	do	do	Mar. 31, 1899	Brooklyn, N. Y.
Sixty-fifth	May 17, 1898	do	Nov. 19, 1898	Buffalo, N. Y.
Sixty-ninth	May 19, 1898	do	Jan. 31, 1899	New York, N. Y.
Seventy-first	May 10-12, 1898..	do	Nov. 15, 1898	do
Two hundred and first	July 16-26, 1898..	New York, N. Y.	Apr. 3, 1899	Greenville, S. C.
Two hundred and second	July 19-Aug. 8, 1898.	Buffalo, N. Y.	Apr. 15, 1899	Savannah, Ga.
Two hundred and third	July 15-25, 1898..	New York, N. Y.	Mar. 25, 1899	Greenville, S. C.
New York Volunteer Cavalry:				
Troop A	May 20, 1898	Hempstead, N. Y. ..	Nov. 23, 1898	New York, N. Y.
Troop C	do	do	Nov. 25, 1898	Brooklyn, N. Y.
New York Volunteer Artillery:				
Fourth Light Battery ..	July 27, 1898	New York, N. Y.	Oct. 21, 1898	New York, N. Y.
Fifth Light Battery	do	do	Oct. 24, 1898	do
Seventh Light Battery ..	do	Roche-ter, N. Y.	Nov. 30, 1898	Rochester, N. Y.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.						
						Officers.						
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.			
Killed in action.	Of wounds.	Disease.	Accident.									
Officers.	Men.	Officers.	Men.	Officers.	Men.							
47	981	43	1,177	47	1,319		8				1	
45	943	46	1,060	58	1,281		12					
50	974	47	1,237	53	1,321	1	5					
49	974	45	1,115	58	1,310		12				1	
49	976	47	1,207	54	1,322		7					
27	1,265	46	1,027	63	1,357		6				1	
4	121	4	155	4	173							
48	976	48	673	78	1,054		28		1		1	
51	983	45	842	98	1,288	23	27		2	1		
46	975	45	1,237	47	1,307		1				1	
40	1,274	46	859	55	1,251		8				1	
12	400	13	277	14	405		1					
3	81	3	50	3	100							
47	962	47	1,234	60	1,309		10				3	
51	949	46	1,214	51	1,302		5					
51	979	50	1,220	54	1,314		4					
51	970	48	1,035	63	1,248		15					
31	1,265	49	1,053	69	1,400		20					
47	972	46	1,216	54	1,289		8					
45	974	49	1,233	52	1,298		3					
45	972	47	1,222	61	1,318		12				2	
49	976	47	1,237	54	1,338	1	5				1	
49	977	44	1,164	59	1,335		11				4	
43	978	46	945	76	1,331		30					
47	976	45	1,155	63	1,279	5	13					
49	960	49	1,149	56	1,295		7					
47	968	47	1,034	69	1,244	5	17					
50	980	46	1,242	50	1,339		4					
47	978	49	1,059	62	1,279		13					
45	977	50	1,114	54	1,271	2					2	
42	1,235	45	964	84	1,287		23					
43	1,255	46	1,027	57	1,257	16	10				1	
44	1,266	46	978	61	1,236		15					
3	81	3	97	3	122							
3	81	3	100	3	107							
3	106	3	105	3	106							
2	106	3	94	3	100							
2	106	3	103	3	106							

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.											
	Officers.				Enlisted men.							
	Died.			Transferred.	Discharged.				Died.			
	Drowned.	Suicide.	Murdered.		Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Murdered or homicide.
Missouri Volunteer Infantry:												
First				4	49	29	1	37		13	8	1
Second				12	27	28		104		16	1	1
Third				6	30	21		12		13	1	
Fourth				13	29	43	1	66		23		
Fifth				7	89	27		16		16		
Sixth				7	21	32	1	228		23	1	
Missouri Light Artillery:												
Battery A					3	4		7		3		
Montana Volunteer Infantry:												
First				30	71	29	4	232	12	8	14	1
Nebraska Volunteer Infantry:												
First				53	25	52	2	304	19	13	28	1
Second				2		6		36		25		
Third				9	10	20	1	327		31		
Nevada Volunteer Infantry:												
Battalion				1		1		126				
Nevada Volunteer Cavalry:												
First Troop						3	3	40		1		
New Hampshire Volunteer Infantry:												
First				13	14	6		13		29		
New Jersey Volunteer Infantry:												
First				5	31	26		13		9		
Second				4	37	30		11		23	1	
Third				15	5	11	9	155		2		
Fourth				20		24	1	279		4		
New York Volunteer Infantry:												
First				8	2	17		27		24		
Second				3	12	5		14		32		
Third				14	30	4		30		31		1
Elighth				7	16	17		22		21		
Ninth				15	15	11	2	75		39	2	
Twelfth				30	13	47		210		23	1	1
Fourteenth				18	15	25	1	43		26		
Twenty-second				7	1	18		102		7	2	
Forty-seventh				22	22	13		122		17	1	
Sixty-fifth				4	18	23	2	24		24	3	
Sixty-ninth				13	29	31		86		24		
Seventy-first				4	22	4		30	12	77	3	1
Two hundred and first				39	48	32	9	91		23	1	
Two hundred and second				11	10	29	5	144		18	1	1
Two hundred and third				15	33	30	1	104		20		
New York Volunteer Cavalry:												
Troop A					3	1		20			1	
Troop C								2		2		
New York Volunteer Artillery:												
Fourth Light Battery					1			1		1		
Fifth Light Battery												
Seventh Light Battery								1				

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			Returned to the United States.
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	
9	142							
44	221							
7	84							
33	196							
17	115							
24	880			Cuba	Dec. 21, 1898	Dec. 24, 1898	Apr. 9, 1899	Apr. 11, 1899
1	18			Porto Rico	July 28, 1898	Aug. 4, 1898	Sept. 8, 1898	Sept. 15, 1898
10	381	9	111	Philippine Islds	July 18, 1898	Aug. 24, 1898	Aug. 28, 1899	Sept. 22, 1899
2	446	11	166	do	June 15, 1898	July 17, 1898	July 1, 1899	July 29, 1899
8	70							
8	392			Cuba	Dec. 30, 1898	Jan. 1, 1899	Apr. 7, 1899	Apr. 12, 1899
1	128							
3	50			Philippine Islds	Nov. 6, 1898	Dec. 6, 1898	Sept. 29, 1899	Nov. 5, 1899
13	75							
9	88							
2	94							
30	213							
39	347							
3	73			Hawaiian Islds	Aug. 5, 1898	Aug. 14, 1898	Nov. 29, 1898	Dec. 6, 1898
2	65							
	96							
25	101							
27	171							
91	386			Cuba	Dec. 30, 1898	Jan. 1, 1899	Mar. 22, 1899	Mar. 26, 1899
14	124							
23	146							
43	210			Porto Rico	Oct. 10, 1898	Oct. 16, 1898	Mar. 4, 1899	Mar. 10, 1899
12	97							
47	220							
5	157	1	67	Cuba	June 14, 1898	June 22, 1898	Aug. 8, 1898	Aug. 18, 1898
119	323							
27	230			Cuba	Dec. 5, 1898	Dec. 9, 1898	Mar. 18, 1899	Mar. 20, 1899
70	258							
	25			Porto Rico	July 28, 1898	Aug. 2, 1898	Sept. 3, 1898	Sept. 10, 1898
	7			do	do	do	do	Do.
1	1							
3	6							
2	3							

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
North Carolina Volunteer Infantry:				
First.....	May 3-11, 1898 ..	Raleigh, N. C	Apr. 22, 1899	Savannah, Ga
Second.....	May 9-27, 1898 ..	do	Nov. 3-25, 1898	North Carolina.....
Third ¹	May 12-July 19, 1898.	Fort Macon, N. C	Jan. 31-Feb. 8, 1899.	Macon, Ga
North Dakota Volunteer Infantry:				
First.....	May 13-16, 1898 ..	Fargo, N. Dak	Sept. 25, 1899	San Francisco, Cal.
Ohio Volunteer Infantry:				
First.....	May 6-June 30, 1898.	Columbus, Ohio ...	Oct. -25, 1898	Cincinnati, Ohio ..
Second.....	May 10-June 30, 1898.	do	Feb. 10-15, 1899.	Macon, Ga
Third.....	do	do	Oct. 26, 1898	Columbus, Ohio ...
Fourth.....	May 9-16, 1898 ..	do	Jan. 20, 1899	do
Fifth.....	May 11-June 30, 1898.	do	Nov. 5, 1898	Cleveland, Ohio ...
Sixth.....	May 12-July 2, 1898.	do	May 24, 1899	Augusta, Ga
Seventh.....	May 13-June 30, 1898.	do	Nov. 6, 1898	Columbus, Ohio ...
Eighth.....	May 13, 1898	do	Nov. 21, 1898	Wooster, Ohio
Ninth ¹	May 14-July 8, 1898.	do	Jan. 23, 1899	Summersville, S. C..
Tenth.....	July 1-7, 1898	do	Mar. 23, 1899	Augusta, Ga
Ohio Volunteer Cavalry:				
First.....	May 9-11, 1898 ..	Ohio.....	Oct. 22-24, 1898.	Ohio.....
Ohio Volunteer Artillery:				
First Battalion.....	May 11, 1898	Columbus, Ohio ...	Oct. 21-23, 1898.	Columbus, Ohio ...
Oregon Volunteer Infantry:				
Second.....	May 7-15, 1898 ..	Portland, Oreg	Aug. 7, 1899	San Francisco, Cal.
Oregon Volunteer Light Artillery:				
Battery A	July 1, 1898	do	Oct. 15, 1898	Vancouver Bar-racks, Wash.
Battery B.....	July 26, 1898	do	Oct. 20, 1898	Portland, Oreg
Pennsylvania Volunteer Infantry:				
First.....	May 10-11, 1898.	Mount Gretna, Pa.	Oct. 26, 1898	Philadelphia, Pa..
Second.....	May 10-13, 1898.	do	Nov. 15, 1898	do
Third.....	May 9-July 22, 1898.	Pennsylvania	Oct. 22, 1898	do
Fourth.....	May 9-July 6, 1898.	do	Nov. 16, 1898	Pennsylvania
Fifth.....	May 11-July 20, 1898.	do	Nov. 7-11, 1898	do
Sixth.....	May 10-13, 1898	Mount Gretna, Pa.	Oct. 17, 1898	do
Elighth.....	May 11-12, 1898	do	Mar. 7, 1899	Augusta, Ga
Ninth.....	May 11-July 12, 1898.	Pennsylvania	Oct. 29, 1898	Pennsylvania
Tenth.....	May 11-12, 1898	Mount Gretna, Pa.	Aug. 22, 1899	San Francisco, Cal.
Twelfth.....	May 11-13, 1898	do	Oct. 29, 1898	Pennsylvania
Thirteenth.....	May 12-13, 1898 ..	do	Mar. 11, 1899	Augusta, Ga
Fourteenth.....	May 12, 1898	do	Feb. 28, 1899	Summersville, S. C..
Fifteenth.....	May 10-11, 1898 ..	do	Jan. 31, 1899	Athens, Ga
Sixteenth.....	May 10-July 18, 1898.	Pennsylvania	Dec. 22-29, 1898.	Pennsylvania
Eighteenth.....	May 11-13, 1898 ..	Mount Gretna, Pa.	Oct. 22, 1898	Pittsburg, Pa.....

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.					
						Officers.					
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.		
Officers.	Men.	Officers.	Men.	Officers.	Men.				Killed in action.	Of wounds.	Accident.
50	932	50	1,028	60	1,387	.....	10	.....	.....	.....	.....
52	980	49	1,218	54	1,342	1	4	.....	.....	.....	.....
48	978	40	1,022	50	1,078	.....	9	.....	.....	.....	1
27	668	31	507	48	671	.....	17	.....	.....	.....	.....
43	896	50	1,257	54	1,321	.....	4	.....	.....	.....	.....
48	874	50	1,168	54	1,278	.....	4	.....	.....	.....	.....
43	913	50	1,246	53	1,297	.....	1	.....	.....	2	.....
50	842	49	1,210	53	1,297	8	1	.....	.....	.....	.....
47	913	49	1,221	49	1,296	.....	.....	.....	.....	.....	.....
46	874	46	1,055	65	1,330	7	11	.....	.....	1	.....
49	872	49	1,117	52	1,311	.....	2	.....	.....	1	.....
48	838	50	1,180	60	1,286	.....	6	.....	.....	4	.....
16	314	16	395	19	440	.....	3	.....	.....	.....	.....
42	1,280	46	1,129	55	1,283	.....	9	.....	.....	.....	.....
38	555	38	768	39	833	.....	6	.....	.....	.....	.....
20	886	20	671	20	710	.....	.....	.....	.....	.....	.....
50	970	44	1,024	56	1,296	.....	12	.....	.....	.....	.....
8	106	8	104	8	106	.....	.....	.....	.....	.....	.....
3	106	8	106	8	106	.....	.....	.....	.....	.....	.....
40	754	41	992	49	1,119	.....	7	.....	.....	1	.....
40	754	25	391	42	1,079	.....	17	.....	.....	.....	.....
40	816	42	877	45	983	.....	3	.....	.....	.....	.....
47	1,014	45	1,211	50	1,261	.....	2	.....	.....	3	.....
41	1,022	48	1,281	49	1,278	.....	1	.....	.....	.....	.....
50	927	50	1,228	51	1,331	.....	1	.....	.....	.....	.....
41	774	41	949	49	1,074	.....	8	.....	.....	.....	.....
41	628	46	1,224	56	1,301	2	5	.....	.....	3	.....
36	604	33	736	42	892	.....	8	.....	.....	1	.....
36	604	35	829	36	867	.....	.....	.....	.....	1	.....
36	604	36	759	37	858	.....	1	.....	.....	.....	.....
36	604	35	687	50	860	.....	15	.....	.....	.....	.....
36	604	33	675	41	842	.....	7	.....	.....	1	.....
47	1,028	48	1,238	50	1,307	.....	2	.....	.....	.....	.....
34	604	34	887	36	857	.....	2	.....	.....	.....	.....

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.													
	Officers.				Enlisted men.									
	Died.			Total.	Transferred.	Discharged.			Died.					
	Drowned.	Suicide.	Murdered.			Disability.	By sentence of general court-martial.	By order.	Killed in action. Of wounds received in action.	Of disease.	Accident.	Drowned.	Suicide.	Murdered or homicide.
North Carolina Volunteer Infantry:														
First.....				10	25	115	7	148		26	1			1
Second.....				5		55	1	26		20				
Third ¹				10		12		10		13				2
North Dakota Volunteer Infantry:														
First.....				17	23	18		106	6 1	9 1 1				
Ohio Volunteer Infantry:														
First.....				4	28	6		19		8 2				
Second.....				4	20	10	2	61		14				
Third.....				3	28	6		9		8				
Fourth.....				4	24	2 1		31 1		23				
Fifth.....						22		23		22				
Sixth.....				19	76	25		145		24				
Seventh.....				3	25	36		127		5				
Eighth.....				10	16	7		13		68				1
Ninth ¹				3	1	14		9		5				
Tenth.....				9	3	31	2	67		21 2				
Ohio Volunteer Cavalry:														
First.....				6	21	17		20		8				
Ohio Volunteer Artillery:														
First Battalion.....					10	10		5		13				
Oregon Volunteer Infantry:														
Second.....				12	45	34		135	13 3	38 1				
Oregon Volunteer Light Artillery:														
Battery A.....						2								
Battery B.....														
Pennsylvania Volunteer Infantry:														
First.....				8	28	7 1		71		11	1			
Second.....				17	2	18 2		652		2				
Third.....				3	26	9		53		12	1			
Fourth.....				5	11	3		4		32				
Fifth.....				1	17			11		16	1		1	
Sixth.....				1	67	10		19		8				
Eighth.....				8	11	27		74		9				
Ninth.....				10	31	6		16		24				
Tenth.....				9	21	20 1		93 12 3		6				
Twelfth.....				1	8	5		2		20				
Thirteenth.....				1	33	13 4		18		21				
Fourteenth.....				15	5	8 1		148		2 1				
Fifteenth.....				8	13	21		123		4		2		
Sixteenth.....				2	12	4		11	1	38				
Eighteenth.....				2	3	10		4		1				

¹Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
36	359	.....	.....	Cuba	Dec. 8, 1898	Dec. 11, 1898	Mar. 26, 1899	Mar. 28, 1899
27	129	.....	.....	.....	.....	.....	.....	.....
14	51	.....	.....	.....	.....	.....	.....	.....
.....	164	1	13	Philippine Islds	June 28, 1898	July 31, 1898	July 30, 1899	Aug. 29, 1899
1	64	.....	.....	.....	.....	.....	.....	.....
8	115	.....	.....	.....	.....	.....	.....	.....
.....	51	.....	.....	.....	.....	.....	.....	.....
5	87	.....	9	Porto Rico	July 28, 1898	Aug. 1, 1898	Oct. 30, 1898	Nov. 4, 1898
3	75	.....	.....	.....	.....	.....	.....	.....
5	275	.....	.....	Cuba	Dec. 30, 1898	Jan. 3, 1899	Apr. 21, 1899	Apr. 26, 1899
1	194	.....	.....	.....	.....	.....	.....	.....
2	106	.....	.....	Cuba	July 6, 1898	July 10, 1898	Aug. 18, 1898	Aug. 26, 1898
15	45	.....	.....	.....	.....	.....	.....	.....
28	154	.....	.....	.....	.....	.....	.....	.....
4	70	1	.....	.....	.....	.....	.....	.....
1	39	.....	.....	.....	.....	.....	.....	.....
3	272	5	69	Philippine Islds	May 25, 1898	June 30, 1898	June 14, 1899	July 12, 1899
.....	2	.....	.....	.....	.....	.....	.....	.....
8	127	.....	.....	.....	.....	.....	.....	.....
12	688	.....	.....	.....	.....	.....	.....	.....
5	106	.....	.....	.....	.....	.....	.....	.....
.....	50	.....	.....	Porto Rico	July 27, 1898	Aug. 2, 1898	Sept. 1, 1898	Sept. 6, 1898
1	47	.....	.....	.....	.....	.....	.....	.....
4	108	.....	.....	.....	.....	.....	.....	.....
4	125	.....	.....	.....	.....	.....	.....	.....
.....	77	.....	.....	.....	.....	.....	.....	.....
.....	156	7	61	Philippine Islds	June 15, 1898	July 17, 1898	July 1, 1899	Aug. 1, 1899
3	38	.....	.....	.....	.....	.....	.....	.....
10	99	.....	.....	.....	.....	.....	.....	.....
8	173	.....	.....	.....	.....	.....	.....	.....
4	167	.....	.....	.....	.....	.....	.....	.....
3	69	.....	6	Porto Rico	July 22, 1898	July 28, 1898	Oct. 10, 1898	Oct. 17, 1898
2	20	.....	.....	.....	.....	.....	.....	.....

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
Pennsylvania Volunteer Cavalry:				
Philadelphia City Troop.	May 7, 1898	Mount Gretna, Pa.	Nov. 21, 1898	Philadelphia, Pa.
Governor's Troop.	May 13, 1898	do	do	Harrisburg, Pa.
Sheridan's Troop.	May 11, 1898	do	Nov. 16, 1898	Tyrone, Pa.
Pennsylvania Volunteer Artillery:				
Light Battery A	May 6, 1898	do	Nov. 19, 1898	Philadelphia, Pa.
Light Battery B	May 8, 1898	do	Nov. 27, 1898	Pittsburg, Pa.
Light Battery C	May 6, 1898	do	Nov. 28, 1898	Phoenixville, Pa.
Rhode Island Volunteer Infantry:				
First	May 10-17, 1898	Quonsett Point, R. I.	Mar. 30, 1899	Columbia, S. C.
Rhode Island Volunteer Artillery:				
Light Batteries A and B	June 25-28, 1898	do	Oct. 26, 1898	Quonsett Point, R. I.
South Carolina Volunteer Infantry:				
First	May 10-26, 1898	Columbia, S. C.	Nov. 10, 1898	Columbia, S. C.
Second	May 14-Aug. 23, 1898	do	Apr. 19, 1899	Augusta, Ga.
South Carolina Volunteer Artillery:				
Heavy Battery	May 21, 1898	do	Feb. 4, 1899	Sullivan's Island, S. C.
South Dakota Volunteer Infantry:				
First	May 12-19, 1898	Sioux Falls, S. Dak.	Oct. 5, 1899	San Francisco, Cal.
Tennessee Volunteer Infantry:				
First	May 19-26, 1898	Nashville, Tenn.	Nov. 23, 1899	do
Second	May 7-24, 1898	do	Feb. 8, 1899	Columbia, S. C.
Third	May 18-23, 1898	do	Jan. 31, 1899	Anniston, Ala.
Fourth	July 1-13, 1898	Knoxville, Tenn.	May 6, 1899	Savannah, Ga.
Texas Volunteer Infantry:				
First	May 10-12, 1898	Austin, Tex.	Apr. 18, 1899	Galveston, Tex.
Second	May 11-13, 1898	do	Nov. 9, 1898	Dallas, Tex.
Third	May 6-14, 1898	do	Feb. 6-24, 1899	Texas
Fourth	July 8-30, 1898	Houston, Tex.	Mar. 7-10, 1899	San Antonio, Tex.
Texas Volunteer Cavalry:				
First	May 14, 15, 1898	Austin, Tex.	Nov. 14, 1898	Fort Sam Houston, Tex.
Utah Volunteer Artillery:				
Field and staff	May 9, 1898	Fort Douglas, Utah	Aug. 16, 1899	San Francisco, Cal.
Light Battery A	do	do	do	do
Light Battery B	do	do	do	do
Light Battery C	July 14, 1898	do	Dec. 21, 1898	Angel Island, Cal.
Utah Volunteer Cavalry:				
First	May 12, 1898	do	Dec. 23, 1898	San Francisco, Cal.
Vermont Volunteer Infantry:				
First	May 16, 1898	Burlington, Vt.	Oct. 26-Nov. 7, 1898	Vermont
Virginia Volunteer Infantry:				
Second	May 11-21, 1898	Richmond, Va.	Dec. 13-20, 1898	Virginia
Third	May 13-26, 1898	do	Nov. 5, 1898	Richmond, Va.
Fourth	May 9-25, 1898	do	Apr. 27, 1899	Savannah, Ga.
Sixth ¹	July 9-Aug. 11, 1898	Virginia	Jan. 26-28, 1899	Macon, Ga.

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.					
						Officers.					
Officers.	Men.	Officers.	Men.	Officers.	Men.	Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.		
									Killed in action.	Of wounds.	Accident.
3	60	3	82	3	104						
3	60	3	97	3	100						
3	60	5	100	6	101	1					
3	60	4	160	5	178		1				
3	60	4	170	4	173						
3	60	3	168	5	174		2				
46	958	45	1,039	68	1,366	7	16				
8	212	6	212	8	212		2				
47	951	49	1,140	53	1,306		3				1
39	969	46	787	47	1,010		1				
4	140	4	150	4	198						
46	983	46	622	70	1,064		20		3		
47	975	41	624	79	1,947	9	24				2
47	951	46	1,100	52	1,367		6				
46	948	47	1,152	50	1,343		2				1
47	1,274	46	1,117	54	1,374		8				
46	936	46	822	60	1,337		13				1
46	956	45	1,119	49	1,355		4				
46	943	46	909	49	1,270		3				
46	1,240	46	949	47	1,313		1				
47	959	47	1,025	54	1,231	1	6				
1		1		2			1				
4	121	5	131	8	176		3				
4	121	4	132	7	173		3				
3	106	3	94	3	106						
3	81	3	86	3	100						
48	980	49	925	52	992		2				1
45	976	46	1,146	48	1,282		1				1
46	955	46	1,222	52	1,334		5				1
44	954	46	1,077	57	1,588	5	6				
29	824	28	804	37	825		9				

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.											
	Officers.				Enlisted men.							
	Died.		Total.		Discharged.			Died.				
	Drowned.	Suicide.			Transferred.	Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.
Pennsylvania Volunteer Cavalry:												
Philadelphia City Troop.						1		20			1	
Governor's Troop.						2		1				
Sheridan's Troop.			1					1				
Pennsylvania Volunteer Artillery:												
Light Battery A.			1					14			4	
Light Battery B.						1		1			1	
Light Battery C.			2					2			4	
Rhode Island Volunteer Infantry:												
First.			23	78	35	13	100				11	1
Rhode Island Volunteer Artillery:												
Light Batteries A and B.			2									
South Carolina Volunteer Infantry:												
First.			4	35	12		66				18	
Second.			1	14	22	3	114				19	
South Carolina Volunteer Artillery:												
Heavy Battery.						11	1	26			1	1
South Dakota Volunteer Infantry:												
First.	1		24	58	59	6	255	20	4	35	1	
Tennessee Volunteer Infantry:												
First.			35	642	87	4	544	1		23	2	
Second.			6	39	63	1	75			14		1
Third.			3	40	21		38			18		1
Fourth.			8	87	15	3	51			16	2	1
Texas Volunteer Infantry:												
First.			14	46	57	3	379			14	1	
Second.			4	110	50	1	56			15		
Third.			3	4	89		230			14	1	
Fourth.			1		15	2	298			11		
Texas Volunteer Cavalry:												
First.			7	8	24		151			3	1	1
Utah Volunteer Artillery:												
Field and staff.			1									
Light Battery A.			3			6		31	4		4	
Light Battery B.			3			6		29	2	2	1	
Light Battery C.						10		2				
Utah Volunteer Cavalry:												
First.						6		7			1	
Vermont Volunteer Infantry:												
First.			3	30				9			26	
Virginia Volunteer Infantry:												
Second.			2	24	10			76			20	1
Third.			6	16	26	1		56			12	1
Fourth.			11	65	63	5		826			30	
Sixth ¹ .			9	7	2	2		3			2	2

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
.....	22	.....	.....	Porto Rico.....	July 28, 1898	Aug. 2, 1898	Sept. 3, 1898	Sept. 10, 1898
.....	3	.....	.....	do.....	Aug. 5, 1898	Aug. 10, 1898	do.....	Do.
.....	1	.....	.....	do.....	do.....	do.....	Sept. 8, 1898	Sept. 15, 1898
.....	18	.....	.....	do.....	do.....	do.....	Sept. 8, 1898	Sept. 10, 1898
.....	3	.....	.....	do.....	July 28, 1898	Aug. 2, 1898	Sept. 8, 1898	Sept. 15, 1898
.....	6	.....	.....	do.....	Aug. 5, 1898	Aug. 10, 1898	do.....	Do.
89	327	.....	.....	.....	.....	.....	.....	.....
85	166	.....	.....	.....	.....	.....	.....	.....
51	223	.....	.....	Cuba.....	Jan. 3, 1899	Jan. 6, 1899	Mar. 26, 1899	Mar. 28, 1899
8	48	.....	.....	.....	.....	.....	.....	.....
4	442	3	90	Philippine Islds	July 23, 1898	Aug. 24, 1898	Aug. 11, 1899	Sept. 7, 1899
20	1,323	.....	.....	do.....	Oct. 30, 1898	Nov. 29, 1898	Oct. 8, 1899	Nov. 11, 1899
74	267	.....	.....	.....	.....	.....	.....	.....
78	191	.....	.....	Cuba.....	Dec. 1, 1898	Dec. 5, 1898	Mar. 28, 1899	Apr. 1, 1899
82	257	.....	.....	do.....	Dec. 23, 1898	Dec. 26, 1898	Mar. 25, 1899	Apr. 2, 1899
15	515	.....	.....	.....	.....	.....	.....	.....
4	236	.....	.....	.....	.....	.....	.....	.....
23	361	.....	.....	.....	.....	.....	.....	.....
38	364	.....	.....	.....	.....	.....	.....	.....
18	206	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	Philippine Islds	June 15, 1898	July 17, 1898	July 1, 1899	July 31, 1899
.....	45	1	2	do.....	do.....	do.....	do.....	Do.
1	41	1	13	Philippine Islds	June 15, 1898	July 17, 1898	July 1, 1899	July 31, 1899
.....	12	.....	.....	.....	.....	.....	.....	.....
.....	14	.....	.....	.....	.....	.....	.....	.....
2	67	.....	.....	.....	.....	.....	.....	.....
5	136	.....	.....	.....	.....	.....	.....	.....
.....	112	.....	.....	.....	.....	.....	.....	.....
22	511	.....	.....	Cuba.....	* Dec. 19, 1898	* Dec. 21, 1898	Mar. 27, 1899	Mar. 29, 1899
3	21	.....	.....	.....	.....	.....	.....	.....

* Company F sailed from Savannah, Ga., December 13, 1898; arrived at Havana December 15, 1898.

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
Washington Volunteer Infantry:				
First Battalion.....	May 6-13, 1898...	Tacoma, Wash.....	Nov. 1, 1899	San Francisco, Cal.
	July 2-15, 1898...	.....do.....	Oct. 28, 1898	Vancouver Barracks, Wash.
West Virginia Volunteer Infantry:				
First.....	May 7-14, 1898 ..	Charleston, W. Va ..	Feb. 4, 1899	Columbus, Ga
Second.....	June 25-July 30, 1898.	.....do.....	Apr. 10, 1899	Greenville, S. C
Wisconsin Volunteer Infantry:				
First.....	May 14, 1898	Milwaukee, Wis ...	Oct. 19, 1898	Wisconsin
Second.....	May 12, 1898 ....	.....do.....	Nov. 9-21, 1898	.....do.....
Third.....	May 11, 1898 ....	.....do.....	Jan. 4-17, 1899	.....do.....
Fourth.....	July 11, 1898 ....	.....do.....	Feb. 28, 1899	Anniston, Ala.....
Wisconsin Volunteer Light Battery.	July 9, 1898 ....	.....do.....	Oct. 8, 1898	Milwaukee, Wis ...
Wyoming Volunteer Infantry:				
First.....	May 7-10, 1898 ..	Cheyenne, Wyo....	Sept. 23, 1899	San Francisco, Cal.
Wyoming Volunteer Light Battery.	June 16, 1898....	.....do.....	.....do.....	.....do.....
U. S. Volunteer Engineers:				
First.....	June 25-July 16, 1898.	Peekskill, N. Y	Jan. 25, 1899	New York, N. Y....
Second.....	June 28-July 12, 1898.	{Ohio, Indiana, Illinois, Minnesota, Nebraska, ¹ Colorado, Utah, California, Oregon. ²	May 16, 1899	Augusta, Ga
Third.....	July 25-Aug. 20, 1898.	Jefferson Barracks, Mo.	.....do.....	San Francisco, Cal.
U. S. Volunteer Cavalry:				
First.....	May 1-21, 1898 ..	Texas, Indian Territory, New Mexico.	May 17, 1899	Fort McPherson, Ga.
Second.....	May 1-30, 1898 ..	Cheyenne, Wyo....	Sept. 15, 1898	Montauk Point, N. Y.
Third.....	May 12-23, 1898..	North Dakota, South Dakota, Montana, Nebraska.	Oct. 24, 1898	Jacksonville, Fla ..
			Sept. 8, 1898	Chickamauga, Ga..
U. S. Volunteer Infantry:				
First.....	May 25-June 4, 1898.	Galveston, Tex	Oct. 28, 1898	Galveston, Tex
Second.....	June 15-26, 1898.	Covington, La	June 22, 1899	Camp Meade, Pa.....
Third.....	June 11-July 9, 1898.	Macon, Ga.....	May 2, 1899	Macon, Ga.....
Fourth.....	June 2-25, 1898..	District of Columbia, Virginia, West Virginia, Maryland.	June 8, 1899	Camp Meade, Pa.....
Fifth.....	June 24-July 13, 1898.	Columbus, Miss....	May 31, 1899	.....do.....
Sixth.....	June 24-July 15, 1898.	Kentucky, Tennessee.	Mar. 15, 1899	Savannah, Ga
Seventh ³	July 6-23, 1898 ..	Missouri.....	Feb. 28, 1899	Macon, Ga.....
Eighth ³	June 22-July 24, 1898.	New Jersey, Tennessee, District of Columbia, Kentucky, West Virginia.	Mar. 6, 1899	Chickamauga, Ga..

¹ Headquarters A, B, C, D, E, T, G, and H.² I, K, L, and M,³ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.						
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Officers.			
Officers.	Men.	Officers.	Men.	Officers.	Men.				Died.			
									Killed in action.	Of wounds.	Disease.	Accident.
46	967	46	769	73	1,347		25		1		1	
14	412	14	411	14	420							
46	964	47	1,089	59	1,300		11	1				
42	1,281	45	1,157	51	1,284		6					
50	976	49	1,224	51	1,299	1	1					
49	972	48	1,248	52	1,301		3	1				
50	975	49	1,196	55	1,294		5				1	
46	1,265	46	1,090	50	1,243		2	1			1	
3	106	3	106	3	106							
14	324	14	239	17	329		3					
3	122	3	67	6	124		2					
50	1,098	44	1,007	56	1,100		11				1	
49	1,087	45	659	61	1,103		16					
58	1,094	52	806	73	1,318		21					
47	994	47	1,090	52	1,185		2		2		1	
41	968	47	565	55	1,169	3	5					
45	961	45	936	47	988		2					
46	971	46	956	49	1,002		2					1
45	950	44	644	63	1,175	6	12				1	
43	984	46	828	60	1,061		12	1			1	
46	962	44	738	74	1,106	14	15				1	
46	981	46	682	81	1,101	24	11					
46	904	46	873	54	996		8					
42	953	45	897	58	965		12				1	
40	868	46	934	50	1,128		4					

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.																
	Officers.				Enlisted men.												
	Died.			Total.	Transferred.	Discharged.			Died.								
	Drowned.	Suicide.	Murdered.			Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Drowned.	Suicide.	Murdered or homicide.		
Washington Volunteer Infantry:																	
First Battalion				27	86	79	2	344	17	8	17	1	1				
					1	2		1			1						
West Virginia Volunteer Infantry:																	
First				12	54	14	2	182			14	1					
Second				6	18	20	1	37			17	2					
Wisconsin Volunteer Infantry:																	
First				2	27	1		7			40						
Second				4	8	1	1	3			89						
Third				6	38	4		22	2		31						
Fourth				4	45	15	12	59			16						
Wisconsin Volunteer Light Battery.																	
Wyoming Volunteer Infantry:																	
First				3	16	9	2	46	1	2	10						
Wyoming Volunteer Light Battery.		1		3	1	9	3	40			2						
U.S. Volunteer Engineers:																	
First				12		15	2	55			17						
Second				16	9	49		351			12	1					
Third				21	26	34		414			10						
U.S. Volunteer Cavalry:																	
First				5		9		31	21	3	19						
Second				8	167	70	3	338			16	6					
Third				2	13	22	2	2			9						
U.S. Volunteer Infantry:																	
First				3	3	2		19			3	2				1	
Second				19	229	26	1	225			37	2					
Third				14	11	71	2	93			39	1					
Fourth				30	102	50	7	167			9	2					
Fifth				35	116	49	3	185			34	1				1	
Sixth				8	3	16	2	40			13						
Seventh ¹				13	7	18	1	32			16					3	
Eighth ¹				4	9	34	13	121			3	1	1				

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
24 4	578 9	5	89	Philippine Islds	Oct. 19, 1898	Nov. 22, 1898	Sept. 5, 1899	Oct. 9, 1899
44 37	261 127							
1 1 6	75 53 98 153	1	3	Porto Rico	July 20, 1898	July 26, 1898	Sept. 8, 1898	Sept. 16, 1898
				do	do	July 28, 1898	Oct. 22, 1898	Oct. 28, 1898
4 12	90 67	1	5	Philippine Islds	June 27, 1898	July 31, 1898	July 30, 1899	Aug. 29, 1899
				do	Nov. 8, 1898	Dec. 6, 1898	do	Do.
4	93			Porto Rico	Aug. 10, 1898	Aug. 15, 1898	Nov. 17, 1898	Nov. 24, 1898
22	444			Cuba	Nov. 23, 1898	Nov. 25, 1898	Apr. 15, 1899	Apr. 17, 1899
				Hawaiian Islds.	Aug. 6, 1898	Aug. 16, 1898	Apr. 20, 1899	Apr. 28, 1899
29	513			Cuba	¹ Feb. 4, 1899	Feb. 8, 1899	Apr. 13, 1899	Apr. 17, 1899
				do	² Feb. 17, 1899	Feb. 19, 1899	Apr. 15, 1899	Do.
				do	³ Dec. 20, 1898	Dec. 22, 1898	Apr. 14, 1899	Do.
12	95	7	97	do	⁴ June 14, 1898	June 22, 1898	Aug. 8, 1898	Aug. 14, 1898
4 4	604 52							
16	46							
11 6	531 223			Cuba	July 28, 1898	Aug. 5, 1898	May 25, 1899	May 29, 1899
				do	Aug. 13, 1898	Aug. 17, 1898	Mar. 30, 1899	Apr. 2, 1899
31	368			do	Oct. 12, 1898	Oct. 18, 1898	May 11, 1899	May 16, 1899
30	419			do	Aug. 8, 1898	Aug. 12, 1898	May 2, 1899	May 10, 1899
48	122			Porto Rico	Oct. 10, 1898	Oct. 15, 1898	Feb. 12, 1899	Feb. 18, 1899
11 12	88 194							

¹ Headquarters E, F, G, and H.
² A, B, C, and K.

³ D, I, L, and M.
⁴ Headquarters A, B, D, E, F, G, K, and L.

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Mustered in.		Mustered out.	
	Date.	Place.	Date.	Place.
U. S. Volunteer Infantry—Continued.				
Ninth ¹	June 18–July 16, 1898.	New Orleans, La...	May 25, 1899	Camp Meade, Pa...
Tenth ¹	July 2–22, 1898...	District of Columbia, Virginia, Georgia, South Carolina, Florida.	Mar. 8, 1899	Macon, Ga.....
Territorial Volunteer Infantry:				
First.....	July 4–23, 1898...	Arizona, Oklahoma, Indian Territory, New Mexico.	Feb. 11–15, 1899	Albany, Ga
Total				

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.						
						Officers.						
						Promoted or transferred.	Resigned or discharged.	Dismissed.	Died.			
Officers.	Men.	Officers.	Men.	Officers.	Men.				Killed in action.	Of wounds.	Disease.	Accident.
46	984	46	869	72	1,047	6	16	1	.....	.....	3	.....
44	964	45	898	48	999	.....	2	1	.....	.....	.....	.....
34	1,269	46	1,118	50	1,265	.....	4	.....	.....	.....	.....	.....
8,970	173,717	8,299	183,521	10,668	220,213	198	2,015	8	18	3	119	4

N.—Table showing strength of volunteer forces called into service of the United States during

Organization.	Losses while in service.														
	Officers.				Enlisted men.										
	Died.			Total.	Transferred.	Discharged.			Died.						
	Drowned.	Suicide.	Murdered.			Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Drowned.	Suicide.	Murdered or homicide.
U. S. Volunteer Infantry—Continued.															
Ninth ¹				26	44	12	.....	36	.....			73	1	.....
Tenth ¹				3	5	33	2	19	.....			14	1	.....	2
Territorial Volunteer Infantry: First.....				4	26	22	.....	64	.....			6	.....	.....	.....
Total.....	1	3	.....	2,369	6,104	4,544	265	18,564	190	78	3,729	97	21	11	30

¹ Colored troops.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.

Losses while in service.		Memoranda.						
Enlisted men.		Wounded		Service beyond the United States.				
Deserted.	Total.	Officers.	Enlisted men.	Place.	Date.			
				Where.	Leaving the United States.	Arrival in foreign country.	Leaving foreign country.	Returned to the United States.
12	178	.....	.....	Cuba	Aug. 17, 1898	Aug. 22, 1898	Apr. 26, 1899	Apr. 30, 1899
25	101	.....	.....	.....	.....	.....	.....
29	147	.....	.....	.....	.....	.....	.....
3,069	36,692	90	1,189					

108 REPORT OF LIEUT. GENERAL COMMANDING THE ARMY.

N.—Table showing strength of volunteer forces called into service of the United States during

RECAPITULATION

	Strength at muster in.		Strength at muster out.		Total number accounted for on muster-out roll.		Losses while in service.		
	Offi- cers.	Men.	Offi- cers.	Men.	Officers.	Men.	Officers.		
							Promoted or transferred.	Resigned or discharged.	Dismissed.
General officers and staff	11,010	1,329	254	.....	1,010	1,329	33	703	.....
Alabama.....	141	3,061	144	3,007	158	3,864	3	10	.....
Arkansas.....	91	1,934	92	2,049	108	2,728	.....	15	.....
California.....	186	4,441	196	4,587	232	5,587	.....	35	.....
Colorado.....	49	1,076	49	1,041	70	1,367	7	13	.....
Connecticut.....	100	2,436	103	2,850	124	3,127	.....	20	.....
District of Columbia.....	49	922	49	810	53	937	.....	3	.....
Delaware.....	47	969	43	886	51	977	.....	8	.....
Florida.....	48	956	48	1,135	54	1,296	.....	5	.....
Georgia.....	142	3,389	144	3,094	166	4,218	.....	20	.....
Idaho.....	32	644	32	444	50	678	.....	17	.....
Illinois.....	489	10,458	487	11,667	547	13,100	4	49	1
Indiana.....	260	5,564	259	6,408	281	7,142	1	18	.....
Iowa.....	206	3,354	202	4,403	230	5,464	1	23	.....
Kansas.....	167	3,735	166	3,957	229	4,795	.....	55	1
Kentucky.....	186	4,559	199	4,756	217	5,397	1	17	.....
Louisiana.....	101	2,255	96	2,223	122	2,794	2	17	.....
Maine.....	61	1,444	61	1,668	67	1,826	1	3	.....
Maryland.....	91	1,979	98	2,299	114	2,597	.....	15	.....
Massachusetts.....	277	5,515	274	6,100	321	6,792	2	37	.....
Michigan.....	233	5,185	231	5,555	262	6,579	.....	26	.....
Minnesota.....	196	4,222	196	4,462	229	5,151	.....	30	.....
Mississippi.....	108	2,512	115	2,695	125	3,036	.....	8	.....
Missouri.....	271	6,234	278	6,978	327	8,083	1	45	.....
Montana.....	48	976	48	673	78	1,054	.....	28	.....
Nebraska.....	137	3,232	136	2,938	200	3,846	23	36	.....
Nevada.....	15	481	16	327	17	506	.....	1	.....
New Hampshire.....	47	952	47	1,234	60	1,309	.....	10	.....
New Jersey.....	184	4,163	193	4,522	237	5,264	.....	44	.....
New York.....	705	15,924	717	17,238	927	19,937	29	171	.....
North Carolina.....	145	2,840	139	3,263	164	3,802	1	23	.....
North Dakota.....	27	658	81	507	48	671	.....	17	.....
Ohio.....	485	9,557	508	12,407	573	13,682	10	47	.....
Oregon.....	56	1,182	50	1,234	62	1,508	.....	12	.....
Pennsylvania.....	619	11,696	614	14,636	709	16,739	3	82	.....
Rhode Island.....	54	1,170	51	1,251	76	1,578	7	18	.....
South Carolina.....	90	2,060	99	2,077	104	2,514	.....	4	.....
South Dakota.....	46	983	46	622	70	1,064	.....	20	.....
Tennessee.....	187	4,148	183	3,998	235	6,031	9	40	.....
Texas.....	231	5,054	230	4,824	259	6,506	1	27	.....
Utah.....	15	429	16	443	23	555	.....	7	.....
Vermont.....	48	980	49	925	52	992	.....	2	.....
Virginia.....	164	3,709	166	4,249	194	5,029	5	21	.....
Washington.....	60	1,379	60	1,180	87	1,767	.....	25	.....
West Virginia.....	88	2,245	92	2,196	110	2,584	.....	17	1
Wisconsin.....	198	4,293	195	4,863	211	5,242	1	11	2
Wyoming.....	17	446	17	296	23	453	.....	5	.....
United States Volunteers.....	763	16,992	780	14,499	1,003	18,717	53	158	3
Total.....	8,970	173,717	18,299	183,521	210,608	220,213	198	2,015	8

¹ On the lines of the general officers and staff corps, in the column under the heading, "Strength at muster in," the total number appointed or enlisted is shown, and in the column under the heading, "Strength at muster out," the number remaining in service November 30, 1899, is stated.

² From this total should be deducted the number of officers and enlisted men accounted for under the headings, "Promoted" or "Transferred," as they were promoted or transferred in their own regiments, or to other organization in the volunteer service, therefore being no loss; also 453 officers of the Regular Army who held commissions in the volunteers.

³ From this total should be deducted 891, this number having been appointed to be commissioned officers, and so accounted for.

⁴ Includes 4 Regular Army officers holding volunteer commissions.

the war with Spain, with losses from all causes, etc., as shown by muster-out rolls—Cont'd.
BY STATES, ETC.

Losses while in service.																			
Officers.										Enlisted men.									
Died.						Total.	Transferred.	Discharged.			Died.						Deserted.	Total.	
Killed in action.	Of wounds.	Disease.	Accident.	Drowned.	Suicide.			Murdered.	Disability.	By sentence of general court-martial.	By order.	Killed in action.	Of wounds received in action.	Of disease.	Accident.	Drowned.			Suicide.	Murdered or homicide.
3		15	1			1	756	9	1,297			19	3				1	1,829	
	1	1					14	410	78	4	147	37	3				174	857	
							16	135	115	2	313	49	2				63	679	
							36	104	145	7	615	60	2				54	1,000	
1							21	32	53	5	198	22					3	826	
							21	13	24	12	132	38					58	277	
							4	32	8		65	22						127	
							8	2	8	3	74	8						46	
							6	24	31	1	57	27					2	19	
							21	131	79	5	754	50	3				102	1,124	
							18	22	25	8	156	13	1				2	234	
							60	285	239	6	582	274	6				1	1,433	
							22	214	132		274	66	2				1	734	
							28	133	120		642	158	1				6	1,061	
							63	129	177	9	385	78	1				1	838	
							18	120	95	8	197	84	3				2	132	
							26	163	166	5	154	24	2				1	641	
							6	22	16	1	30	49						571	
							16	28	40	7	135	31	1					40	
							47	111	95	1	180	265	1					56	
							31	160	93	4	426	200	1					31	
							33	90	114	5	371	80	2					692	
							10	68	28	1	115	56	1					924	
							49	198	184	3	470	107	6					689	
							30	71	29	4	232	12	8					72	
							64	36	78	3	667	19	13					841	
							1		4	3	166	84						135	
							13	14	6		13	29						10	
							44	73	81	10	458	38	1					8	
							210	290	310	20	1,148	12	3					13	
							25	25	182	8	184	59	1					76	
							17	23	18		105	6	1					80	
							65	252	186	5	534	1						742	
							12	45	36		135	13	3					514	
							95	288	166	9	1,338	38	1					77	
							25	78	35	13	100	38						164	
							5	49	45	4	206	38						1,275	
							24	58	59	6	255	20	4					3	
							52	808	186	8	708	71	4					274	
							29	168	235	6	1,114	57	3					2,103	
							7		28		69	6	2					827	
							3	30			9							94	
							28	112	101	8	461	64						4	
							27	87	81	2	345	17	8					442	
							18	67	34	3	169	31	3					249	
							16	118	21	13	91	2						98	
							6	17	18	5	86	1	2					112	
2		9	1				223	770	632	38	2,192	21	3	330	17	2	7	67	
*18	3	119	4	1	3		*2,369	6,104	4,544	265	*18,554	190	78	3,729	97	21	11	*236,692	

The total number therefore furnished was—

Officers 10,017
Enlisted men 213,218

Total 223,235

ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 1, 1900.

REPORT OF THE INSPECTOR-GENERAL.

WAR DEPARTMENT,
INSPECTOR-GENERAL'S OFFICE,
Washington, D. C., September 29, 1900.

SIR: I have the honor to submit the following annual report of operations of the Inspector-General's Department, in addition to the matters relating to fiscal affairs and other branches of the public service, which have been submitted to the Secretary of War.

The important duties of the Inspection Department may be better appreciated if both branches of work were considered together. It is no insignificant task, and requires the persistent and faithful efforts of every officer in the department to make a thorough inspection of the entire military establishment in all its ramifications; and it is sincerely hoped that the results of the past year have been satisfactory, as the work has been performed enthusiastically and with an intense desire of aiding in the maintenance of the proverbial efficiency of the Army, and doing all the duty that is required by law, regulations, and orders. The work during the past year included inspections of disbursements involving over \$300,000,000, of property amounting to over \$10,000,000, with over \$1,000,000 saved for further service, and of over 130,000 men; and in addition to the usual inspections of military posts, supply depots, arsenals, armories, recruiting stations, hospitals, national cemeteries, and soldiers' homes, mention may be permitted of the organization of a systematic inspection service of transports, the inspection of West Point from this office, the resumption of inspections of military schools having an army detail and United States arms and equipments, and the inspection of complicated insular accounts.

The difference in the amount of work assigned to the several inspectors in the United States seems much greater under the department than under the district system of inspections, which was in very successful operation previous to the Spanish war. At New York, for instance, the inspections averaged over two per diem, including Sundays and holidays; and yet many millions of disbursements and a number of arsenals, depots, recruiting stations, etc., within the limits of the Department of the East were regularly inspected from this office. This is about four times as much as the average for each inspector. But the work everywhere was most cheerfully done in a quiet but effective manner; and the results accomplished indicate continued efficiency and generally economical administration, the average being about seventeen daily inspections throughout the entire military service.

PERSONNEL.

At date of the last report the permanent force of the Inspector-General's Department consisted of 10 officers, including its chief. Now there are but 9, the death of Col. H. W. Lawton, major-general, U. S. Volunteers, who was killed on December 19, 1899, at San Mateo, having left a vacancy which has not yet been filled. The death of this gallant soldier is deeply mourned by the nation and the Army; and by none more than his comrades in the Inspection Corps. And it will be difficult to find another officer of such sterling force and impressive qualities for the place and duties he filled so well.

No change has occurred in the number of volunteer inspectors-general, of which there are 9. But the number of acting inspectors-general and of officers assigned to duty in this department has increased from 7 at date of last report to 20 at this date; giving a total force of 38 commissioned officers serving at present in this department.

It is very gratifying that at present a much larger proportion of the officers on duty in this corps has been assigned according to the recommendation of this Bureau than two years ago; and the benefit to the service seems evident. For instance, in Cuba the inspection work was habitually arduous, exacting, and well performed at most points, both in its civil and military branches, and the work since Colonel Burton arrived there can hardly be designated as perfunctory. Incidentally the discovery of the defalcation there may reflect credit upon the Army and its system which has produced such remarkable regularity and exemption from wrongdoing and fearless revelations. And the work in the Philippines was no less arduous or well performed regardless of exposure to death or disease.

The best officers of this corps are usually selected for their soldierly and individual qualities; they do not aspire to know everything better than anyone else can know it; nor know any branch of the service better than their commanding general, who served in it and to whom it is their first desire to be useful; nor know the mysteries of accounting or any other specialty better than the technical experts. But they know enough, and have not hesitated to do their duty; and are ready, like all other soldiers, to do their best, whatever duties are assigned them. With an untrammelled, well-selected, and well-sustained inspection service, centrally supervised, the Army has remained constantly not only irreproachable, but above the possibility of suspicion. And their work habitually wins commendation among our best officers, of both the staff and line; though there may be some who criticise, oppose, or obstruct inspections, as there may be some who even speak evil of the law. But the cause for scandals in the public service has been minimized and the efficiency of the military service justly demonstrated by the admirable qualities and high character of the men inspected rather than by any type of inspections. The work, whether civil or military, assigned the Army has been habitually well done by faithful and intelligent public servants.

With such men as Hughes and Lawton commissioned, and Otis and Chaffee assigned to duty in a corps so small—or, if a single arm like the artillery is considered, with such men as Sanger or Duvall on inspection duty—definite and beneficial results can confidently be anticipated, and have been habitually attained, carping criticisms and baleful or occult influences to the contrary notwithstanding. The very nature of the duties prevents publicity frequently, or the great benefit some

officers have accomplished in their several spheres of influence, some with every assistance given them and some in the face of the lack of it, might in justice to them be specified. But attention may justly be invited to the faithfulness of the dead during the year, as no one can desire that their work shall be ignored; and perhaps no corps has lost worthier or a larger percentage of officers. They embrace, though so few, the regular, the volunteer, and the detailed officer; and their obituary circulars from this Bureau are inclosed, though recognizing how much more is their due.

The names, rank, changes, appointments, stations, etc., of these officers are shown in Appendix C, to which attention is invited for detailed information, and a summary of the duties performed by them is given in tabular form in Appendix B.

These two statements deserve careful consideration as they show several general features to which special attention is invited, viz:

1. That there is but one regular inspector-general on duty in the Philippines, and he the junior of the Inspection Corps; and that none of the other inspectors there hold a higher rank than that of major, though these islands are occupied by half of the entire Army.

2. That there are too numerous changes among the officers detailed to this department incident to the exigencies of the service.

3. That the work of the inspection department has largely increased, indicating the necessity of an increase of the permanent force, and suggesting simply a permanent and proportional

INCREASE OF THE INSPECTOR-GENERAL'S DEPARTMENT.

From the experience gained in the past two years, with our Army largely increased and extending its operations into another continent, the needs of both line and staff may now be definitely determined. The standing army has not proven adequate in numbers, though so highly commended for its qualities; and line officers have been heavily drawn upon to meet the more exacting demands of the staff, and both suffer in consequence. This is especially so in the Inspector-General's Department, whose work can seldom be measured in dollars and cents, though it has a direct bearing upon the economic administration of the entire military establishment and upon that discipline and efficiency which determine the standard of military excellence; and this principle is recognized in every modern army. The mental state is to the physical as three to one in war. The Inspector-General's Department should therefore be always maintained on the most efficient basis, for its efficiency is multiplied by the numbers it inspects; and it is evident, from the experience of the past, that legislation on the following lines will accomplish all that is most desirable:

1. Legal establishment of inspections.
2. Adequate number of permanent inspectors for peace footing.
3. Adequate rank.
4. Judicial independence and subordination to higher authority.
5. Elasticity to meet the varying demands of war.
6. Adequate clerical assistance.
7. Insuring complete and thorough inspections of all fairly alike.

The necessity of defining the duties of the Inspector-General's Department by law is obvious. It is but just to the department, and will assure that moral and legal support which is essential in making effective inspections. Law is the due expression of the nation's will and is the best authority in

a free country. There will then be an end to the discussions concerning the application and continuance of individual or even certain classes of inspections; and the Secretary of War, as well as the Inspector-General's Department, will be relieved of all perplexity and embarrassment attending the settlement of any carefully cultivated contentions. So long as the law is silent as to the certainty, kind, and frequency of inspections, the occasional antagonism of individuals or organizations to the prescribed, thorough, and universal general inspection must be expected periodically; and quibbles about the channel for official papers and reports will appear to dishearten or take the pith from needed inspections. The fine art of avoiding, thwarting, or emasculating rigid outside inspections may not yet be entirely lost.

The inspections at present prescribed by law are those of unserviceable property, of disbursements, and of the Soldiers' Homes, both regular and volunteer. The inspections of military posts and camps and of the soldiers themselves, which is the first and fundamental duty of the corps, and of supply depots, of arsenals and armories, of recruiting stations and rendezvous, of national cemeteries, of hospitals and sanitariums, and of the military schools and institutions of learning having an army detail, of supplies and transportation and other branches of the military establishment are assigned to the department by its designation and immemorial custom and are explicitly required only by alterable regulations or orders. There is ample precedent for such legislation, some of the duties of nearly all the departments having been established by law. And usually any outbreak among the soldiers or irregularities in the accounts occur where the general inspections are infrequent or hampered. Carefully supervised general inspections have been steadfastly and successfully maintained, simply because they are sufficiently beneficial to warrant it, and when they are injured or ignored the damage resulting to the public service is displayed without great delay. It is believed most scandals in the military service are fairly foreseen and preventable if so permitted. But this may be recognized earlier or clearer by the experienced inspector than by others. How admirably the line of the Army was inspected and what admirable soldiers composed that Army when the Spanish war began may well be a pleasant memory. And the higher authorities have consistently recognized the worth of the system and maintained it resolutely from General Washington till now, which has proved a great encouragement. There are sufficient illustrations in and out of the Army how to smother inspections perhaps without positively intending it.

Adequate number
for peace footing.

At times during the decade preceding the Spanish war, when our Army consisted of only 25,000 men, the Inspector-General's Department had a force of 7 permanent and 5 acting inspectors-general; and this force of 12 inspectors, experience has proven, was absolutely necessary for a fairly thorough and complete inspection of the military establishment; and this complete inquiry into every branch of military affairs authorized by army regulations requires no little watchfulness and persistent effort. With an Army of 65,000 men, which is probably a low estimate of the force needed in future, there should be at least 25 inspectors-general; and this number is really 13 less than the number of officers now on duty in the department. There are few idle hours for these officers, and the work

has increased everywhere. The inspections of disbursements and of condemned property alone have quadrupled since 1897, and during the past year involved over \$300,000,000, and \$10,000,000, respectively. How acutely this service touches the regularity and economy of the service can hardly be fully known or appreciated outside of those officers upon whom the duty devolves and who have pursued its tedious routine through tireless days. The conscience of the Army belongs first to its rugged, soldierly duties in the face of the enemy, and only incidentally in these essentials of money and property, but here, too, it is habitually trustworthy.

The practice of detailing officers temporarily to the inspection department is injurious to the line as well as to the corps. Both are suffering by the operation; the one by losing the service of these detailed officers and the other by being subjected to constant changes. It is like robbing Peter to pay Paul, to say nothing of the delicate positions in which the officers may be placed by inspecting organizations in which they are interested, or officers under whom they may have to serve afterwards. The necessity of details is a forcible argument that the Inspector-General's Department should be increased numerically. An addition of 3 colonels, 5 lieutenant-colonels, and 7 majors is believed to be as low an estimate as seems consistent with thoroughness and efficiency. This would give the Inspector-General's Department 1 or more general officers, 6 colonels, 8 lieutenant-colonels, and 10 majors; in all, 25 officers. The work over sea demands the most careful attention and supervision and most experienced and reliable offices during years to come.

Inspectors act under the orders of the highest military authority, and in the performance of their duties represent the authority ordering the inspection. Their responsibilities are equivalent to that of any command, and they are brought into personal contact under all kinds of circumstances with officers of all grades and with the various departments and military institutions. The rank of an inspector should, therefore, be proportionately higher than that of all other staff officers of corresponding service; otherwise neither his inspections nor his reports can command the deference or confidence which are freely given to higher rank, with the broader experience it indicates and the confidence it suggests. It is the same in all armies, and the habit which follows from it, of deferring to higher rank and title, is no doubt beneficial and necessary.

Inspections by an officer inadequately authorized or sustained are repugnant to the military sense, and may excite feelings of humiliation and resentment, and have a tendency to limit his observations and reflections. General Washington recognized the importance of the system of general inspection and this principle of proper military rank, and his inspector-general held the rank of major-general. And at one time all inspectors of the Regular Army held the rank of colonel, which is undoubtedly a good working rank to have now. In considering the proper rank for this corps, it may be noted that a brigadier-general was assigned to duty as inspector-general in the Division of Cuba, and the Philippines may have the same experience. Neglecting Cuba, we have at present 1 military division and 14 departments. The colonels are needed for such places as Manila, New York, Chicago, San Francisco, Washington, and upon expeditions of the first importance

like that to China, or at the centers of population and inspection; and the lieutenant-colonels and ranking majors at the various military departments and Washington, according to the requirements of the service. Assigning 3 officers to Washington and 15 at the division and departments, there are but 6 left to serve with such forces as the China brigades or the Philippine districts, or as assistants where the work is unusually heavy or sickness, detail, or death occurs. The Department of the East has 3 inspectors at present and Havana 2, and there is a field of usefulness for every one, and the difficulty in securing the officers desired have been occasionally great.

Independence. Judicial independence is the *sine qua non* of the inspector. It is not only a paramount necessity in the office of inspector, but should be plainly manifested by the officer himself; as without it inspections and special investigations are of but little value. This principle, so essential to the proper discharge of inspection duties, has received the full recognition of Congress in the law for the frequent inspection of the money accounts of disbursing officers, enacted April 20, 1874, by providing that such inspections shall not be made by officers belonging to the department to which the disbursements pertain; and also in the law for the inspection of unserviceable property with a view to its condemnation, enacted March 3, 1825, by expressly providing that such inspections shall be made primarily by officers of the Inspector-General's Department. The strong and persistent effort to have all inspections confined and controlled within the environment and branch of service under inspection is a familiar but should be seldom if ever even a partially successful experience. Inspections conducted under these laws by disinterested officers are characterized by great impartiality and independence, and freedom from suspicion of bias or personal interest. Necessity constitutes the *raison d'être* of the Inspector-General's Department, and this necessity should appeal in the strongest way for such an addition to the permanent force as will insure its continuance and development. The Inspector-General's Department should be wholly independent of all other branches of the service and be in a position to perform thoroughly and efficiently all the duties required of it; and to this end appointments to the Inspector-General's Department should have every branch of the service represented in fair proportion among the inspectors, and thus insure a collection of specialists skilled in all the departments—line and staff—of the Army. Careful selection for vacancies should be made in all cases from capable and efficient captains who may be experienced and imbued with the habit of command and the best methods of leading and caring for troops; and it is thought that the increased rank and soldierly status will be ample inducements for the best officers to seek the department. The inspection department fills such a position in the military establishment that every measure which will perfect the department, and give it ability, strength, and independence, must prove, under wise management, of greater benefit to the entire Army than is indicated by its mere number.

Elasticity to meet the varying demands of war. The advantage of being prepared for any emergency that may arise when the volunteer forces are called into active service can not be questioned. The number of inspectors-general should have a definite ratio to the volunteer forces which should be fixed by law beforehand, so that the inspection department may expand or diminish in number with the increase or decrease of the volunteer forces. It is believed that the minimum

number needed will be one inspector-general with the rank of major for every 3 regiments, or brigade; one inspector-general with the rank of lieutenant-colonel for every 9 regiments, or division; one inspector-general with the rank of colonel for every 27 regiments, or army corps; and one inspector-general with the rank of brigadier-general for each separate army of two or more army corps, and, say, 15 per cent for contingencies of death, sickness, leave, and other assignments such as Hughes, Lawton, Sanger, Garlington, Rolfe, Sharpe, and Murray now cause. This will give an inspector on the staff of every general officer commanding troops; and this was habitually done in time of peace, and surely is all the more needed in the face of an enemy. During the Spanish war, brigade inspectors-general were not authorized, though they were greatly needed at all times and more especially during the first stages of mobilization; and such officers as Generals Lawton and Lee found it advantageous to detail officers of their command as brigade inspectors. And a somewhat similar system seems to prevail now in the Filipino districts. It is an admirable method to insure the highest military excellence in the shortest possible time; and no better method has ever been discovered. The higher volunteer positions should be filled primarily by officers selected from the permanent force so as to insure the greatest possible efficiency and experience in the correct system of inspection and training from the start.

Adequate clerical assistance. All other branches of the staff of the Army are provided in some way with the necessary clerical assistance; but for the Inspector-General's Department no separate and certain provisions whatever are made. The frequent annoyances from this cause and the grab for and interference with the clerks and messengers assigned to duty with this department in field or frontier service is most damaging to the public service. The officers of this department are gentlemen of rank, who have been carefully selected for merited promotion, and for these very exacting duties, after many years' service; and their time is very thoroughly engaged in matters of wide importance to the service—matters pertaining to the very essence of economical, honest, and efficient administration; and in their duties there is much tedious clerical work that it is extravagant and unwise to require such officers to perform individually. If any class of military duties requires adequate clerical assistance, it is this, as it relates to all others.

The clerks should be on an equal footing with paymasters' clerks, with the usual assurance of proper increase with length of service, so as to secure and retain men of ability and specially trained for the particular and important duties required of them, as well as insure permanency, reliability, and continuous service. Under the present method it is difficult to secure, in some cases, efficient clerks from the class assigned, especially in our new possessions; the rate of compensation in most cases not being fair for this class of employees. The services of trained and competent clerks are required, as they must be intrusted with a preliminary knowledge of investigations and afterwards be relied upon in the final preparation of important reports which are occasionally of a most confidential character.

Prompt dispatch of business pertaining to inspections and investigations and the rendition of reports is indispensable, if the fullest benefits are to flow therefrom; and it is therefore essential that inspectors be given adequate, reliable, and expert clerical assistance. But few things have caused more annoyance and uncertainty than the situation as to

permanent clerks, and those who obstruct complete and thorough inspections find this a favorite point of quiet attack.

Fair and thorough inspections for all. Evidently it will be in the interest of economy and for the benefit of the service to have habitually the most thorough and disinterested inspections possible of the entire military establishment, in all its branches and features. It is an axiom that an excellent army responds best to such disinterested inspections administered without fear, favor, or hope of reward; and the efficiency of the service depends vitally upon the efficiency of inspection; and in order to secure efficiency in inspection, securing the best and most efficient officers for inspectors and an eye single to the public interests and the widest good are essential; and these officers should be permanently provided in good and sufficient quantity as well as in good and sufficient quality, and be given a fairly free hand and firm support in a wise and incisive observation of "every branch of military affairs." This is found to be one of the best means to promote uniform excellence and regularity, and one of the best remedies against disintegration and inefficiency and extravagance; though doubtless there are individuals who prefer some other way.

THE UNCERTAIN AND HAMPERING EFFECT OF DETAILS INSTEAD OF PERMANENT OFFICERS IN THE INSPECTOR-GENERAL'S DEPARTMENT.

The work of the inspecting officer, when conscientiously performed, is probably as difficult and exacting as usually falls to the lot of army officers in any other line of military duty; and nowhere else will the qualifications necessary for a proper and thorough performance of the duty cover a wider range. Among these may be mentioned military knowledge and experience, power of observation and concise statement, judicial fairness, inexhaustible patience, readiness to encourage excellence, honesty of purpose, the courage of his convictions, adaptability to circumstances, undoubted honor and soldierly character, and perfect and ready tact. An inspecting officer comes alone into offices and commands, and is required to observe everything and submit his observations to higher authority. The authority he represents is interested in all he observes. There may be other specialists; but his specialty is observation and whatever military expenditure or duty his superior is interested in he should strive to duly observe and truly report. Evidently an extended and diversified experience is not only absolutely essential but assured; and enables inspecting officers, when familiar with their duties, to be of some service to their comrades and to do their part toward securing uniformity, contentment, excellence, and harmony, and toward adjusting all to the common task amidst conflicting ambition and interests and doubtful points of law, regulations, and orders, and all the possible variety of questions regarding the proper performance of military duty. This labor has been faithfully performed during the past year by the officers assigned to the duty; whether commendably or beneficially performed others must decide. Evidently it has made some impression.

Some persons may not consider general inspections equally if at all necessary everywhere, though experience has proved they are; but while they are universal it is gratifying if they can, by precept or example, be useful even to young and inexperienced officers, and so aid in the promotion of harmony and of uniformity in the manner

of performing military duty in the different departments and localities, and strengthen and encourage the zealous and competent in their work and help the discipline and efficiency of the Army, and the effective adjustment of all the parts to the complete and effective working of the whole. The fundamental idea of our system of general inspection (and perhaps all the more essential to the care of improvised armies in times of war), is to give every branch of the service the benefit of remarks from disinterested outside observers in addition to the frequent technical inspections by immediate commanders. If this double system of inspections has been beneficial to any individuals or to the public service in the past, perhaps our iconoclasts will still permit it to continue. Certainly some very worthy officers have kindly commended it in the past, as is shown by the following extracts:

General Washington, in a letter of January 28, 1778, to the Congressional committee which visited his camp at Valley Forge to mature a plan for the better administration of the Army, wrote:

In an Army like ours the office of Inspector-General, principally for the purpose of instituting and carrying into practice an uniform system of manual and maneuvers, must be extremely useful and advantageous. A number of assistants to this office will be required, as one man would be incapable of superintending the practice of the rules laid down throughout the Army, and unless this were carefully done, it would be of little avail to establish them. It would be proper, in my opinion, to have one to each brigade, the benefits resulting from which would greatly overbalance the consideration of expense.

On July 14, 1780, General Washington addressed the following to the President of Congress:

I inclose a plan which, in conjunction with the Inspector-General, I have framed for the consideration of Congress. It is indispensable the Department should be put in full activity without loss of time—the speedier the decision the better. A large additional allowance, at least nominally, for the inspectors is proposed, but it is a very imperfect compensation for the additional trouble, and unless some extra privileges and emoluments attend the office, it will not be undertaken by officers of rank and abilities.

In a letter to Baron de Steuben he said:

I give it as my clear opinion that it (the Department of the Inspector-General) has been of the greatest importance for reasons too obvious to need enumeration, but more especially for having established one uniform system of maneuvers and regulations in an Army composed of the troops of thirteen States (each having its local prejudices) and subject to constant deviations and interruptions from the frequent changes it has undergone. It is equally just to declare that the Department under your auspices has been conducted with an intelligence, activity, and zeal not less beneficial to the public than honorary to yourself, and that I have abundant reasons to be satisfied with your abilities and attention to the duties of your office during the four years you have been in service.

On July 4, 1798, General Washington wrote to the Secretary of War as follows:

If the Inspector-General is not an officer of great respectability of character, firm and strict in discharging the duties of the trust reposed in him, or if he be too pliant in his disposition, he will most assuredly be imposed upon, and the efficient strength and condition of the Army will not be known to the commander in chief.

[Extract from letter of Gen. W. T. Sherman, dated March 13, 1878.]

On the Inspector-General of the Army devolves, as a matter of course, duties of the most delicate and responsible nature. He is, or should be, in fact the alter ego of the Commander-in-Chief. In technical language he is his "other eye." He inspects troops, examines money and property accounts, detects errors of administration and discipline, prevents irregularities of all kinds, and is habitually author-

ized to give orders on the spot in the name of his principal. The heads of bureaus are, in our service, construed as branches of the War Department, so that the Inspector-General has frequently been entrusted with most confidential inspections by the Secretary of War, in addition to his purely military functions.

General Sheridan, under date of February 17, 1888, said :

The inspector's corps, as now organized by law, does not contain a sufficient number of officers for the proper performance of the duties devolved upon it, and there are at present four officers of the line of the Army detailed as acting inspectors-general at department headquarters. Their return to their proper regiments and replacement by officers of the regular corps would, I believe, be of benefit to the service.

Gen. Wesley Merritt, in discussing a bill for the increase of the Inspector-General's Department, February 28, 1890, said:

I favor the bill because its provisions are a necessity to the proper administration of the Army. As our Army is small, it should be made the more perfect. Its influence, in its best phases, should be felt in the ranks of the National Guard. There is no better way of accomplishing these desirable objects than by an efficient and powerful corps of inspectors. They need high rank, high character, and a strength measured by that of the best of the administrative corps of the staff.

My experiences as a general officer convince me that no corps is more important to the efficiency, drill, discipline, and correct control of the Army than is that of the Inspector-General's Department. It is difficult to make comparisons of the relative importance of the staff departments, because their spheres of operation are so different, nor is such comparison necessary. Increased numbers and increased rank for the Inspector-General's Department is not urged by me for the reason that they exist in other departments. While that is an argument in favor of the legislation asked for in the interests of the corps of most deserving and accomplished officers, I place the reasons for the increase on the higher ground that this corps is the conservator, and in many ways the only one, of everything which perfects the Army, and that it should be composed of enough officers of sufficient rank to insure that the duties imposed on it should be thoroughly accomplished.

In conclusion, I am constrained to say if the details of the bill I mention are carefully studied in the points of view suggested, as well as in others, the measure, I believe, will commend itself to the favor of all interested in the well-being of the Army and the National Guard.

General Schofield, under date of December 19, 1892, said:

Daily and even more frequent inspections by commanding officers and administrative officers in immediate charge of men and material are indispensable to the military service. By such constant scrutiny and almost constant practice a military establishment is kept at all times in efficient condition. But these inspections made by officers immediately responsible are made in general for their own information, to satisfy themselves that the troops and material and supplies under their command and control are at all times in condition for effective service. Such inspections are not sufficient for the information of higher commanders and the War Department. It can not reasonably be expected that commanders or other officers directly responsible will report to higher authority defects for which they themselves may be held accountable. Inspections for this latter purpose should be made by officers wholly independent of the branch of the service to be inspected, and such inspectors should manifestly be officers of rank, education, and experience, to enable them to examine critically into all the branches of the military service subjected to their inspection.

The manifest needs of the military service are an assistant inspector-general for each of the military departments; 1 for the Headquarters of the Army, and not less than 3, including the Inspector-General, for general duties under the direction of the Secretary of War. I therefore recommend the measure now proposed for the reorganization and increase of the Inspector-General's Department to favorable consideration. What that measure provides for is the least that can be considered sufficient for the demands of the military service under present conditions, namely: 1 brigadier-general, 4 colonels, 4 lieutenant-colonels, and 4 majors.

Among the more recent commendations received, the following may be mentioned:

From Maj. Gen. William R. Shafter:

I regard an efficient corps of inspectors as absolutely necessary for the best interests of the Army, and as the greatest aid to discipline and efficiency, and in my opinion the corps should be considerably increased.

Maj. Gen. E. S. Otis in his report covering operations in the Philippines from September 1, 1899, to May 5, 1900, states:

The extent and character of the work of officers connected with the departments of the Adjutant-General, Inspector-General, and Judge-Advocate-General of the United States Army, and that of officers of its Pay Department, may be measurably appreciated when the task of administering the affairs of a military organization consisting of 60,000 men is carefully considered. In times of profound peace it would be somewhat exacting, but in a season of active war, when that organization is scattered over an extended territory, and when the laws, regulations, and orders prescribed during, and to a great extent for, peace conditions must be complied with in so far as circumstances permit, the task assumes proportions of very decided magnitude. These officers have met all the demands made upon them in their several departments with commensurate ability.

And on October 9, 1900:

That the inspecting officers of the army of the Philippines performed most exacting and satisfactory work in that most important military duty in making thorough and conscientious inspections. They gave attention to the condition and needs of the troops, examined the affairs of the different staff departments, also the affairs of a civil nature which were under the supervision of the military governor of the islands. The members of the permanent Inspector-General's Department performing service in the islands—Lieut. Col. E. A. Garlington and Maj. S. C. Mills—and the volunteer inspectors-general, Majors Mallory, Murray, West, Beach, and Brown, covered a great field of labor with consummate ability, some of them to the great impairment of their health because of their incessant official service. I can not say too much in their praise nor emphasize too greatly the value of their services for the good of the Army.

It is believed that a guaranty of permanency of tenure of office in the Inspector-General's Department for most officers engaged upon inspection work would be but a suitable recognition of the necessities of the situation. An officer detailed for duty in the department for a term of years who, upon the expiration of this term, severs his connection therewith, labors under disadvantages; and those who are detailed but for a day upon some special inspection may find these intense, as compared with one who is a member of the permanent establishment and makes inspection his regular business, and the Government interests may suffer. Even in the millions of condemned property it is found that many thousands are saved the Treasury by experienced and permanent inspectors under the law of March 3, 1825. And this is no disparagement to the large number of detailed officers who have in the past done such excellent work in the Inspector-General's Department and those who are continuing this soldierly work so admirably to-day. The conditions confronting the two are entirely different. In the case of the inspecting officer who is a member of the permanent establishment, it is but fair to assume that as his status is permanently fixed and his life work marked out for him, it is here his reputation and career is to be made, and he will necessarily become fairly familiar with his constant occupation and take the greatest pains to equip himself for the prompt and efficient discharge of the important and manifold duties devolving upon him. And whoever will look at the list of names of the officers who bore commissions and performed duty in this corps during the past fiscal year must recognize that they did their duties faithfully and efficiently even unto death. In order to produce the greatest good to the inspected, an inspector's status should be such that there can not be the slightest ground for creating any undue reluctance on his part to criticise where criticism is due and beneficial; and from one so situated the greatest independence of thought if not of action should assuredly be expected which would subserve the best interests of the public service. Nevertheless some few

resent while the very best desire being inspected, and most are willing to apply inspections to others. And an inimical attitude does not invariably, though it may occasionally, indicate the existence of some need for a thorough, disinterested, outside inspection.

It certainly needs no argument to demonstrate the fact that an inspection and report to superior authority, which is made by an officer who, himself, may in the near future become an integral part of the organization inspected and junior in rank to some of the officers whose work he was required to report upon, can hardly be expected to be always thoroughly impartial and explicit. The fact that the special line of work upon which he is engaged is but temporary, may have a tendency to depreciate its true worth and importance in his own estimation. It is hardly fair to always exact, though we confidently expect, thoroughly independent, unbiased, and impartial work from an inspector whose surroundings are such that a rigid adherence to such a line of policy could result, in the end, only to his own disadvantage and embarrassment. Even the protection which a permanent commission gives may fail sometimes to guard against subsequent persecution for duty well performed in the public interests. Were there any good and sufficient reasons why this Department should not be enlarged so as to provide in the permanent establishment for the number of officers habitually required for the proper performance of inspection work, doubtless the practice of detailing officers would not be questioned in the least; and any embarrassments resulting therefrom would be only regarded as necessary, and, therefore, proper and legitimate and accepted without comment, however trying to individuals—as it is duty done in the military service where lives and labor are accepted as but reasonable service, and the rewards will come only to the more fortunate or more worthy.

TRAINING OF OUR ARMY.

According to modern requirements, the glaring need of our Army in 1895 was simply the annual practice of mobilization or the annual maneuvering of about 50,000 men of all branches of the service for a week or more. This leads to the solution of military problems which are essential to the proper soldierly training of an army, so that all its component parts shall be adjusted to and experienced in their proper duties, and the fitness of each branch and individual will be tested and demonstrated habitually. And in concert with the National Guard the concentration and maneuvering of some such force appears entirely practical.

That the training, experience, and qualities of the individual soldier and the company and battalion organizations and their officers were particularly fine, the deeds they performed and the universal praise bestowed sufficiently witness. Comparatively careful and partially new methods of remounting and recruiting the Army had given us the best body of men and horses which had possibly ever characterized the service; and the men were never so well fed, clothed, and equipped nor better selected and trained to their duties. For these results may not this Bureau modestly claim to have done its utmost, joining enthusiastically with all who favored the improvements. The soldierly experience against great odds and a savage foe and all the dearth and hardships of the unsettled plains had been capped by most careful instruction in schools and practice in all that civilized warfare demands under officers taught at West Point and post-graduate schools and

lyceums; and such a combination of the best theory and practice can hardly be excelled again in the generation now leaving the stage. The close of our century witnessed our Army at its best, and the nation gave it its confidence and esteem, especially for the subordinate individuals and units of organization and command. If higher organizations, which constitute the commands of general officers and furnish test and practice for the general staff, were not similarly solidly trained, it may appear a weakness in our old methods almost inherent in a scattered army, when we were actually reducing the employees and animals we had at hand that were well trained to military requirements, which were sadly missed during the exigencies of the last few years. In short, without any reflection elsewhere, it seems we found fine military training and qualities and an admirable response to every call of duty from the very first in that part of the Regular Army where there was no promotion by selection and not very much exclusion in the regular promotion by seniority. The military men without the most effective "pull" did their duty very well; perhaps fully as well as those who were selected for promotion and are also doing exceedingly well—and selections for promotions have probably never been more faithfully and skillfully made than in recent years. The three methods of promotion and appointment, viz, by exclusion, by selection, and by seniority, as illustrated and tested in these wars, seem to decide in favor of the first named—like cadets are commissioned.

Now the situation is somewhat changed. We have considerable practice in transportation, and a sort of heterogeneous mobilization of comparatively new organizations and soldiers; but perhaps less complete experience or training but no less careful selection of the individual soldiers upon whom the deadliness of war's burdens is most apt to fall. Even with a better musket now it is sometimes questioned whether marksmanship, for instance, holds its own in the Army at present; and in the early stages of the Spanish war it was said that a considerable per cent of a regiment in face of the enemy had never had target practice previously. This may be unavoidable in our method of meeting the exigency of war, but the discomfort or sacrifice the method may lead to, has some, indeed no little, importance at times.

But necessity and national tradition and practical military methods may have far more to do than the mere organization, with such war tests, or even with maintaining the best system and attaining the best results with the least cost in blood and suffering and treasure. We have done very well from the first in some wars and habitually toward the close in all our wars, and may be willing to let it go at that; though ours is no longer a nation of God-fearing backwoodsmen familiar from childhood with weapons and overcoming natural obstacles, and with the practical care for one's self and with all the exigencies of life in the open. One-sixth of our population is now city bred, and our soldiers' training should fit the case. And practically we have comparatively few or no trained reserves, though abundant resources. Men called suddenly to our colors are not necessarily familiar with their weapons, their officers, and their organizations, as in Europe.

As to army organization, it is well to remember it is only a means to an end, and it should be a growth from our own history and environment to best suit us; and even with the best organization something else and more important is requisite for the best success. The organization, and powder, and arms of the Spaniards may have been sometimes bet-

ter than part of ours, and their disciplined soldiers have frequently been proved staunch in battle—but the success was ours. If the latest law did not demand division hospitals nor brigade inspectors for the recent volunteers, still if they were improvised in time by those who would take the responsibility, like such surgeons as Hoff and Sternberg, or such generals as Lee and Lawton, the results may have been just as beneficial as if provided by law. Good men well led have often made a good account of themselves, even when without the best organization or arms: and even the best organization can hardly make inferior men superior soldiers. And our own history may give some illustration of this both in this and the last century. Now as always our Army is doing very well and has given a good account of itself. The Germans did not have the best muskets in their last war with France.

The prevailing organization in the continental nations of Europe is usually characterized by universal compulsory service in crowded communities dominated by a royal family, whose scions, however incompetent, must appear as figure heads and war lords, and are therefore furnished with chiefs of staff to furnish military skill, who have little connection with the secretary of war. There the regiments are localized, and the regimental commanders actually command them and are even responsible for making the men's clothing; and the brigades, divisions, and corps assemble for their commanders, and are almost as permanently organized as the companies. The size, training, and expansion of their armies are proverbial; and up to the last the men who are called out are trained and fit for the business of war. In 1897 we had about one regular soldier to 140 square miles, or to 2,500 inhabitants. Evidently the system and organization should not be identical that suits two such different cases, when the one has none but trained soldiers with the colors and long established regiments, and the other quite the reverse. Our system has seldom failed us except in the early stages of war; and then simply because we will not maintain our practice of mobilization in peace: Congress being apparently more ready to give money lavishly in war than constantly, as military wisdom and experience require.

How earnestly the efforts of the Inspector-General's Department had been in favor of the improvement noted need not be related here; but the inspection of the line of the Army was conducted under a particularly effective system, aimed absolutely at the requirements of field service, and was never less trammelled nor better sustained and more incisive and effective than in 1897; and its advocacy of regular maneuvers and the practice of periodical mobilization is indicated by a single extract from the annual report of the Inspector-General to the Lieutenant-General Commanding the Army for the fiscal year 1895, viz:

The number of officers in our service who have had experience in handling large masses of troops is growing less and less each year, and there are many on its rolls who have never seen a brigade of troops. Can a satisfactory condition of instruction exist under such circumstances? Has not the time come when it is absolutely essential in order to instruct the younger officers of the Army how to best apply the theoretical knowledge which they have acquired at the Military Academy and at the service schools to occasionally concentrate troops at some central point and engage in a series of maneuvers approximating as nearly as possible to the actual conditions of war, forbidding the exercise of any maneuver which can be performed while in garrison?

Troops and company commanders acting merely independently are probably as thoroughly versed in their duties as could be desired, but as subordinate com-

manders under service conditions some of them may have had inadequate experience, or those who have had sufficient experience date it back thirty years, and since then many elements of the soldier's trade have radically changed.

There was never a time in the history of our Army when the officers and men were better prepared theoretically to meet an enemy than now. What they need is practice, and next to war a simulated condition of war with a system of thorough and intelligent inspections is the best school. This instruction with large units is now more important than ever before. With a new arm, new drill regulations, a large number of well-educated but inexperienced officers, the time is ripe for practice of a practical kind, with forces sufficiently large to simulate war conditions. This is the essential element of modern soldierly life and instruction.

It is submitted that subsequent experience fairly sustained this recommendation. It may be well merely from a military point of view to recognize that the events of the past few years have been an army training school under a guidance or instinct that appears providential. The struggle of centuries with the aborigines within our borders may have another flash in the pan occasionally, but as an important contest it is finished, and as a school admirable in its training may be nearly closed. We are approaching the epoch of a new millennium and only the clearest prescience can foretell the limits of the destiny before us. It is believed that we have entered upon this new phase of our national career well prepared, but anyway our time has come and we have been called. What is before us is history written in a larger hand, and the appeal and judgment is unchanged since the Declaration of Independence of these United States of America. Upon no class of our fellow-citizens do the new demands touch more seriously than upon the armed defenders of the national policy and frontier: and the response everywhere has been more than creditable. It is believed that our fellow-countrymen are satisfied with their army.

CONDITIONS IN THE PHILIPPINES.

The following extracts are submitted from the annual reports of Maj. S. C. Mills, inspector-general, Division of the Philippines; Maj. W. D. Beach, inspector-general, U. S. Volunteers, Department of Southern Luzon, and Maj. R. A. Brown, inspector-general, U. S. Volunteers, Department of Northern Luzon, as serving to indicate conditions in the Philippines.

Attention is also invited to Appendix D, giving a very interesting account of active operations in the Philippine Islands, by Majors Beach and Brown; and to Appendix E, giving report of a reconnoissance of Major Brown, of which Major-General MacArthur says, in submitting it to headquarters, Department of the Pacific and Eighth Army Corps:

The original purpose of Major Brown's reconnoissance was to accumulate information for my own use in organizing a line of supplies for the battalion of the Sixteenth Infantry at Bayombong. His report affords so much general information as to the situation at Bayombong and vicinity that it is respectfully submitted for the information of the department commander.

Efficiency, discipline, and appearance of troops. *Major Beach:* Nearly all of the regiments serving in the Department of Southern Luzon are volunteers, so the following remarks apply mainly to them. As to efficiency, there is no possible doubt they have been enthusiastic to such a degree that general officers have at times felt it necessary to restrain them; their only fear seemed to be that they would be left behind, and to avoid this the matter of supply seemed to them a very minor consideration. I believe a great part of this eagerness has been due to the desire of the field officers of the various regiments to make their own particular regiments the most noted of the volunteer organizations. The discipline of many of these regiments has been excellent, but occasionally one hears complaints that you can not demand of them what you do of regulars, or "they get sick" in spite of all you can do.

Now that the chance for anything but "bushwhacking" is past, the general feeling among the men is that they want to be sent home. The plan of putting thoroughly

qualified, active regular officers in the field officers' positions in the volunteer regiments has been productive of most excellent results. The officers' reputations are at stake, and they try to be the very best soldiers in the command with, in the general case, not indifferent results.

Major Brown: In the guerrilla warfare patrol duty has been so excessive that each infantry regiment has been furnished with 50 horses, and mounted detachments have been organized in each regiment to do much of this work. These detachments have added greatly to the efficiency of the infantry regiments in keeping the country cleared of small bands and in saving the strength of the foot troops.

The cavalry force on duty in this division up to the time of the dissolution of the insurgent army was two troops of cavalry, Troops E and K, Fourth Cavalry.

The service rendered by these two troops was out of all proportion to their numbers. In the operations beginning around Angeles about November 1 the two troops were sent to take part in operations on the left 2 miles around Porac. These operations completed, the two troops immediately returned to Angeles, proceeded to Calulut and took part in the operations to Magalang, advanced from this point through Concepcion to Capas, at the extreme front and center. They were pushed along with the advance until the rapid movements of troops to the front by rail left them at Panique. But from here they at once began operations on the left flank to Camiling. Returning from this expedition, the troops were moved to Bayamban and from there they formed part of the expedition through northern Zambales. These two troops have been practically constantly in the field on the move and their services on all these expeditions have been admirable.

The horses stood the work well and kept in as good condition as any cavalry horses I have seen called on to do a like amount of work. For periods of ten days to two weeks they subsisted entirely on native forage without any appreciable loss of flesh or condition. Troop E is mounted on American horses, that were in the first lot brought over in January, 1899. Their horses have done splendid work, and a large amount of it, and are in good condition.

In the period of active operations around Angeles and the advance through Bamban the two batteries of light artillery, Battery E, First Artillery, and Battery G, Third Artillery, rendered important and valuable services. Both batteries were greatly handicapped by lack of horses for transportation of guns, ammunition, and supplies.

The engineer troops with the division were Companies A and B of the Engineer Battalion. They rendered valuable services, but were too few in number. In the advance along the railroad and later there was more than enough work for a regiment of such troops. In assigning work to such a small force it always seemed that more important service was demanded elsewhere than that to which they were assigned. They were too few in number to be of service that engineer troops should be to an army in the field.

The work of the Signal Corps has been highly satisfactory and the services of the officers and men in the field are deserving of unstinted praise. As the troops became scattered throughout the territory occupied by the division the volume of work was in excess of the capacity of the limited number of officers and men available for duty. Men and officers worked with untiring industry and energy to make up as far as they could for the deficiency in numbers.

No modern machine guns were furnished by the Ordnance Department. A number of .45 caliber Gatlings were furnished and were of some service for defensive purposes, but for offensive use the range of efficient service is so short that they proved practically useless. Their place, in fact, is in the museum and arsenal along with other obsolete weapons.

This (infantry) arm of the service has been the principal one employed in nearly all the operations. All the troops that I saw actively engaged have been equipped with the United States magazine rifle, Krag-Jorgensen, and this appears to be an entirely satisfactory up-to-date weapon. Expressions of satisfaction have frequently been heard regarding the sight furnished with the latest issues, a sight that will enable the marksman to aim at the object he wishes to hit. If the experience of officers and men in actual service can be taken as a guide, the Springfield rifle (.45 caliber) is to be forever relegated to the arsenal and museum.

Colt's .38-caliber revolver has so far been the most modern arm of that class issued. About a year ago a few officers provided themselves with Mauser pistols of latest pattern. As a weapon it showed such superiority over any issued by the Government that large numbers have since been bought by both officers and enlisted men, the latter procuring the weapon for use in the mounted detachments.

Major Beach: The magazine rifle and carbine have not a critic that I have discov-

ered. The weight and size of the rifle are such, however, that one of the colonels, Col. G. S. Anderson, Thirty-eighth Infantry, U. S. Volunteers, told me that had he to prepare another regiment for Philippine service he would ask to have it armed with the carbine instead of the rifle, since most of the work here is done at comparatively short range.

Several thousand rounds of ammunition have been spoiled by becoming wet. The difficulty seems to be in making a water-tight joint between the bullet and the shell. The powder, if taken out and dried, seems to return to its original condition.

Long before the cartridge belts are worn out the loops become so enlarged that cartridges drop out.

Canteens almost invariably flatten, my own flattening on the side which rested against the saddle blanket. This is probably due to too light metal in its construction; as a possible remedy, if such is not the case, I would suggest an inside tin support soldered to one-half of the canteen, before the two halves are put together, and resting against the other side.

Haversacks show very great weakness in one particular and that is in the canvas strips fastening the carrying rings to the sack; these invariably give way long before the sack. They should be made of much heavier canvas several times doubled, for if made of leather washing will soon render them worthless.

Major Mills: So far as my observations go the ordnance and ordnance stores supplied to the Army in this division have been satisfactory.

The Quartermaster supplies and clothing have been, in the main, satisfactory. The variety of patterns and colors in khaki uniforms and leggings has rendered it impossible for companies to preserve uniform appearance. Leggings are in this division an article of constant wear by the enlisted men, and should be made part of the clothing allowance.

The appearance of the white cap recently authorized would be improved if the coat of arms of the United States were worn with it. This should be of metal similar to that worn on the shoulder strap of the white and khaki blouses, and should be pinned to the front of the cap.

Major Beach: Many regiments seem to prefer the blue flannel shirt and khaki trousers to the light shirt and khaki blouse and trousers. The tendency here seems to be to get rid of every garment possible, including the blanket and shelter half, owing to the intense discomfort of any unnecessary burden. Inspectors have reported on the fact that the men will not keep the shelter half, and that invariably many are missing at inspection.

The almost universal campaigning outfit of the soldier in this climate is the blue shirt, campaign hat, khaki trousers, leggings, tan shoes, belt, rifle, haversack, canteen, and poncho (the last carried neatly folded and held between the cartridge belt and the back). Khaki leggings, it is believed, should be made with heavy duck instead of leather welts down the edges for the attachment of the hooks and eyelets, for the reason that leather stains the leggings, besides becoming hard and brittle under frequent washing.

In appearance the khaki uniform, which is almost universally worn, is all that could be desired for field use.

Major Brown: During the entire year practically no tentage has been used. When the troops were in large bodies they occupied the houses of the town abandoned by the inhabitants. Later, when only one or two companies constituted a garrison, the convent and, at most, a few other houses furnished ample quarters. Few of the troops have been forced to bivouac and it may be said that quarters such as afforded by houses are essential for health of troops in this climate. The first floors are from 8 to 15 feet from the ground and this elevation seems to give considerable immunity from the malarial fever. When the troops have been forced to bivouac even for a single night on the damp or wet ground an immediate and very perceptible increase in the sick list has been noticed. In many towns the convents afford most excellent quarters and it is not an unusual thing to find one or two companies in a town quartered as comfortably as troops in the most modern barracks at home.

The clothing as issued at present is not satisfactory. The quality is inferior to what it should be, and in the field this means that the clothing wears out very soon and only a short campaign is necessary to leave many of the men destitute of proper clothing. A cheap hat, cheap underclothing, cheap socks, and cheap grade of khaki are furnished. The felt hat should be of the Stetson grade now used by officers. Such a hat would last a man his whole enlistment and always be serviceable and presentable; the one at present furnished lasts hardly more than six months. All clothing should be of the best grade attainable. No economy results to either soldier or the Government by supplying the present quality. The blue shirt is about the only article of clothing that is satisfactory in quality. I recommend that this be furnished in khaki color. The russet shoes furnished have excellent material, but many complaints are heard to the effect that the shoe is too low across the top of the

foot where the seam comes, a defect of manufacture. The shoe could still further be improved on in quality and made more presentable. I believe a shoe of the quality and style of manufacture of the Regal shoe, Titan calf, would be immensely more satisfactory. The khaki so far as furnished is not satisfactory, but as it is constantly improving it is presumed that eventually a grade will be obtained that will not fade and shrink continuously with each washing. In this climate it is especially desirable that the quality of all clothing furnished shall be of the very best grade. Transportation is at all times a serious and most important question. In the field the soldier must carry the minimum weight and move with the minimum amount of transportation. With widely scattered forces the distribution of new clothing is slow and difficult. So then a better quality of clothing means the soldier can march with a lighter supply and the supply need not be renewed so often.

Major Mills: Especial mention is due to the transport branch of the Quartermaster's Department, whose successful carrying of both troops and stores on the long ocean voyage is worthy of the highest praise.

Major Beach: The quantity of transportation has increased very materially within the past six months, so that troops in the last January and February campaign were not subjected to the hardships suffered on the northern expedition under General Lawton. Pack trains and 4-mule escort wagons answered all purposes very satisfactorily.

Since active operations on a large scale have ceased, each regiment of infantry has been supplied with 50 American horses which are used by mounted detachments in making rapid movements, performing escort duty, etc. The value of these mounted detachments has been frequently demonstrated, but it seems unfortunate that, owing to the lack of cavalry, work of this nature can not be done by the arm to which it legitimately belongs. The infantry rifle which the mounted detachments have to carry renders the men very awkward when mounted. If impossible to furnish cavalry for this work, then the detachments should be armed with the carbine.

Major Brown: During the period of active operations the only pack train in the division was one consisting of about 50 mules, assigned to the Thirty-sixth Infantry, Col. J. F. Bell, commanding. As soon as the advance commenced beyond Angeles the services of this pack train became invaluable. Roads and swollen rivers were either impassable or laboriously and painfully slow for all other transportation. But the pack train always kept up with the troops, and this meant the gain of time to the extent of several days in the work of rescuing the railroad from destruction. The pack train carried the rations not only for the Thirty-sixth Infantry, but for all troops of infantry, cavalry, and artillery that were pushed to the front. The bulk of rations in such emergencies was made up of the emergency ration, and for such occasions the latter proved a satisfactory and invaluable supply of food. Much of the work of the two troops of cavalry was done with the use of the pack train, the service being shared by an accompanying force of the Thirty-sixth Infantry.

My conclusions are that cavalry equipped with pack-train transportation can render just as valuable services in these islands as they were ever able to do in the western Indian country of the United States. For the proper performance of the work it is capable of doing every troop of cavalry should be furnished with 10 pack and 2 riding mules and 2 civilian packers. These should be properly organized, equipped, and trained before the troops are shipped from the United States. All the work done by the cavalry in these islands has been done in the face of entire lack of proper previous equipment, organization, and preparation in almost every respect as regards transportation.

As a result of my experience, covering the past two years, I am firmly of the opinion that a proper organized system of land transportation is a great necessity in our service. Every other civilized army in the world has such a system consisting of both personnel and material. With us there is a lack of system and no personnel. When transportation is required a lot of material is thrown together and sent to the place required. A quartermaster searches in all directions for employees, teamsters, blacksmiths, wheelwrights, saddlers, veterinarians, etc. Three-fourths of the persons so employed are either bad characters, incompetent, or worthless. They work when everything is easy and pleasant and they quit work at an emergency, or when matters seem to them unsatisfactory. The quartermaster department seems to be at their mercy, and if discharged from one place they hunt an easier job with the next quartermaster they can find. The labor of transportation is usually done somehow, because enlisted men can always be obtained to tide over a catastrophe, but the work is done at the expense of a lot of annoyance, fuss, and expenditure of energy that is never seen in any other service of the Government, and which would be entirely unnecessary if there existed a proper organized system with personnel and material.

The carabao.

The main reliance for land transportation has been the carabao. The advantages and disadvantages of that animal are well known. During the past year a great decrease has taken place in the number of these animals on the island of Luzon. Some districts have suffered the loss of nearly all their carabaos, due to an epidemic of "rinderpest," and military operations have used up a large number of the animals. The animal is so essential for agricultural purposes that crops this coming year will be considerably lessened, due to loss of carabaos, while any further material loss of these animals may be the cause of such serious diminution of crops as to lead to famine in certain sections. For military purposes mules and wagons have now been furnished in such numbers that the regular service of supply is performed by them.

Subsistence Department.

Major Mills: The commissary stores have usually been satisfactory in quality, such deterioration as has been found to exist being very largely due to climatic conditions.

The Australian beef furnished has been satisfactory. There has been at times a shortage of supplies and sales stores in the commissary department, which would seem to have been unnecessary had proper foresight been used.

Major West: Much has been written on what constitutes an ideal tropical ration, and I believe the tendency is in the right direction, which is to replace part of the bacon and bean ration by substances not so illy adapted to a hot climate. When a man's stomach finally succumbs he says he can eat nothing, but constantly tastes bacon. Sick men crave milk, by which they mean the Highland brand of evaporated cream (and to my knowledge there has been a frequent shortage of that very necessary article in the various commissaries).

Australian frozen beef has been supplied in reasonable quantities to nearly all posts in the provinces of Cavite, Laguna, Batangas, and Tayabas. Occasional storms interrupted the supply at posts on or near the southern coast, but as a rule the beef supply has been excellent. Mutton has not been so well liked, because, being thinner, it soon softens and spoils.

A large loss in cereals has occurred by reason of their being weevily, notwithstanding the fact that they are inclosed in tin cases.

Major Brown: The ration as at present supplied is abundant, varied, and sufficient. I do not agree with the frequently expressed opinion that the meat proportion is too large. Men in this climate who work hard in the open air and keep their health have good appetites, and want meat. In fact, the non-meat-eaters among the native population are too poor to buy meat. The more opulent among the natives eat meat frequently and in considerable quantity.

The Subsistence Department, however, more than any other staff corps of the division, was short of officers to properly perform its duties. The few on duty in the division were overwhelmed with the volume of work they had to perform. They deserve all credit for the service they rendered, but there should have been more of them and the work of the department should have been better performed. An improvement could have been made in the distribution of the supplies in placing them in possession of the troops.

Medical Department.

As a rule, the sick throughout the division have been well cared for, although this department has been seriously hampered in sections by an insufficient number of medical officers. It has not been an unusual situation for one medical officer to have the care of the sick of two and three stations situated 5 and 10 miles apart. When I passed through Caranglan the last part of March, where one company of the Twenty-fourth U. S. Infantry was stationed, the nearest medical officer was at San Jose, 22 miles distant. The wide distribution of troops in numerous stations necessitates many more medical officers than would be required if the troops were in more concentrated bodies.

Major Mills: Medicine and medical supplies have been satisfactory.

Sanitation.

Major Beach: The subjects of camp sanitation and pure drinking water have received so much attention that it is unusual to find any but the most healthful surroundings in camps of any permanency. The sickness due to drinking unboiled water on the march is, I believe, unavoidable. Officers and some old soldiers will make their canteens of water last for twenty-four hours, if necessary, or else go without; but the average soldier can not be made to do it, and sickness results. Sinks now in general use are of the dry-earth pattern, than which there is no better unless it be the placing of them over running water, which is in vogue in three garrisons in this department.

Shortages.

Major Mills: There has been considerable complaint on the part of the Quartermaster's, Subsistence, and Medical departments of shortages in original packages received here.

Some trouble has also come from shipment of too large packages. As all stores have to be lightered here, the weight should not exceed 300 pounds when practicable to avoid it.

Major Beach: From the fact that more fault has been found by Clothing accounts. inspectors with clothing accounts of soldiers than with anything else (which statement applies both to volunteers and regulars), it is believed that some modification of the present system should be devised. It is claimed by company commanders and quartermasters, I believe justly, that it is impossible to have rolls extended and entries made and witnessed under ordinary campaign conditions. Before this can be done, the company, the witnessing officer, and the quartermaster may be widely separated. The new clothing book appears to have no space for soldiers' signatures—a wise omission. It is believed that the company commander (frequently the only officer with it and responsible for everything else in the company) should attest the entries in the clothing book and be responsible for their corresponding with the schedule. Army Regulations, 1178, required this to be done by the "witnessing officer." I believe company commanders should be required by regulations to check all semiannual clothing settlements.

Major Brown: The system of issuing clothing is not at all satisfactory for troops in the field and in large numbers. The objections to it are serious, and most have been presented by many of the officers most immediately concerned. It frequently happens that issues must be made to several hundred or a thousand men by one quartermaster in a few hours, and sometimes at night. To do this and conform to the present regulations is simply impossible. I am not prepared to submit a plan for the method of issue, but the method should be one that will get the clothing into the possession of the troops in the shortest possible time.

Major Beach: Much complaint has also arisen through the Property accountability. inability of quartermasters to keep track of stores held by officers on memorandum receipt. The initial transaction is all right, but as soon as the responsible officer becomes separated from the accountable officer the trouble begins. Other stores are required and frequently obtained from different quartermasters; stores are lost, destroyed, or stolen, and then the responsible officer, who may be 1,000 miles from either accountable officer, is sent home sick. His successor knows nothing about the property, except in a general way, and not having to make returns for it, is not as interested in its safe-keeping as he would otherwise be; so, as a result, the accountable officer is forced to an endless correspondence or, what is easier, to a board of survey. There is no questioning the fact that officers as a rule will not take the same care of property for which they are merely responsible as of that for which they are accountable. I have taken careful note of the present method during the past two years and believe it to be inferior to the old method, especially in time of active service. It imposes too great a responsibility upon quartermasters.

Boards of survey. It is believed that there should be some substitute for boards of survey in time of war. If the certificate of an officer or the affidavit of an enlisted man is considered insufficient, then let an inspector or summary court officer (the latter is always available) have the power to swear witnesses, hear testimony, and render decisions covering the loss of property. The present method is too cumbersome and requires too much stationery.

Unserviceable ordnance stores. It would seem very desirable to provide some method for allowing company commanders to drop meat cans, cups, knives, forks, and spoons without the action of an inspector. The cost of these articles is small, and the cup and meat can very soon wear out, and yet the impossibility of dropping on certificate or affidavit renders it necessary to use or carry around useless articles, sometimes for months. The fact that men in the field frequently use old meat cans, from which the tin has disappeared and which have been cut and scratched by knives, may, in the absence of thorough cleaning, induce intestinal troubles otherwise avoidable.

INSPECTION OF POSTS AND COMMANDS.

A detailed statement relative to the inspection of military posts and commands is presented in Appendix A.

The inspections of troops in the Philippines have been very thorough and beneficial, and the reports generally indicate a fairly excellent military bearing of the troops and a satisfactory state of progress and discipline, the men generally appearing to be in good health and ready for the field. The condition of arms, equipments, and accouterments was generally reported as fairly satisfactory, and the supplies as good and sufficient. It is remarkable how much has been accomplished under the three-battalion

system—more can not be expected except by allowing more preliminary time and opportunity for absolute instruction and soldierly training amidst obstacles and with arms in permanently organized bodies.

The inspection of garrisoned posts in the United States was fairly complete, though the posts in the new Department of Alaska were not inspected though suggested. This will now be duly remedied. The reports received indicate thoroughness and efficiency on the part of both inspectors and inspected, and praiseworthy zeal and ability in the performance of their duties. There have been many changes in post commanders, some of whom were comparatively young officers; but the conditions are reported as more than fairly satisfactory. The laws, regulations, and orders were generally enforced, justice was fairly and promptly administered, instruction faithfully imparted, and public property, as a rule, properly protected and cared for. Harmony and good will have prevailed among the officers, who have almost universally shown zeal and ability. But few of them have been unfavorably mentioned. Favorable mention of some 208 have been duly recorded. The recruits enlisted have been reported as mostly satisfactory, and the discipline and behavior of the enlisted men generally as very good and their tone as fairly satisfactory. The conditions at the posts were, as a rule, found to be most satisfactory; and the supplies furnished by the supply departments were generally reported as good and satisfactory in quantity and quality. The success and practical utility of the post exchange seem to be unquestioned by those best informed. It is a great improvement over the sutlers' régime, especially where it is not placed in any way in the hands of civilians. The act of July 28, 1866, seemed to contemplate that all needs of the soldier should be supplied as an official duty under a branch of the Army itself.* The sanitary condition of posts was generally reported as fairly satisfactory and some of them as excellent.

In Cuba and Porto Rico. All garrison posts in Cuba were inspected thoroughly during the year, and satisfactory conditions were found to generally prevail both there and in Porto Rico. Some young officers recently appointed from civil life were reported as deficient in instruction and training, though promising.

During the year a total of 135,056 officers and men were inspected one or more times—52,268 in the United States, 71,742 in the Philippines, 10,028 in Cuba, and 1,008 in Porto Rico. All the regiments of volunteers except one were inspected before embarking for the Philippines, and the reports show that, though occasionally questioned in some particular item or tendency, they were generally in a good or even excellent state of discipline and instruction; and, as a rule, satisfactorily organized and equipped. If any deterioration is intimated, as about skill in firing occasionally, the remedy is recognized and readily accessible. Though there is no claim that inexperienced and untrained

*SEC. 25. *And be it further enacted*, That the office of sutler in the Army and at military posts is hereby abolished, and the Subsistence Department is hereby authorized and required to furnish such articles as may from time to time be designated by the inspectors-general of the Army, and the same to be sold to officers and enlisted men at cost prices; and if not paid for when purchased, a true account thereof shall be kept, and the amount due the Government shall be deducted by the paymaster at the payment next following such purchase: *Provided*, That this section shall not go into effect until the first day of July, eighteen hundred and sixty-seven.

Act of Congress approved July 28, 1866.

soldiers are better than the other kind, still the wonderful adaptability and enthusiasm of Americans for soldierly duties have been doubly demonstrated.

COAST DEFENSES ON THE PACIFIC COAST.

In regard to this important subject Lieut. Col. M. P. Maus, inspector-general, U. S. Volunteers, reports:

Rapid progress has been made in the construction of the coast defenses at Puget Sound, the mouth of the Columbia River, and San Francisco and San Diego harbors. The entire cost of these defenses up to date is approximately seven and a half millions of dollars. There have been completed 147 emplacements, and 98 guns and mortars have been placed in position.

In order to complete and place these defenses in effective condition much is to be desired. The system of communication and other necessary adjuncts for effective fire control, the installation of searchlights, etc., are either incomplete or totally lacking.

The men to man these guns are wanting, there being scarcely sufficient to preserve them from rust and rapid deterioration. *At the present time there are only 9 officers and 315 available men of the seacoast artillery for duty with these defenses, and in order to supply a single detachment to man and work each gun and mortar now in place on this coast a force of about 4,500 men is required.* The completion of batteries from time to time during the year have largely increased the number required, and this will be still further increased as new emplacements are constructed and guns mounted.

In view of the great cost and importance of these defenses, and rapid deterioration unless proper attention is given to their care and preservation, decisive steps should be taken to supply without delay the necessary men, and to complete the system of communication and other adjuncts to insure effective service in time of war. In their present condition these great defenses would be of little service, as it will require months of time and instruction to train officers and men to their effective use, and to complete the minor details upon which fire direction and control so largely depend.

In the construction of these works the Engineer Department has done uniformly excellent work. The emplacements are well built, convenient, and complete in every detail, and it is difficult to imagine an improvement in modern ordnance against which they would [not] be proof.

In my report of an inspection of the defenses at the mouth of the Columbia River attention was invited to the already heavy armament mounted there and proposed. It was suggested, with a view to the modification of projected work, that the present condition be considered. The river is only navigable for light vessels of war. At the time of my last visit there was not more than 24 feet of water at the bar, and at points in the river above it is too shallow for vessels of war of any considerable size to pass.

Up to date the guns mounted are evenly divided between bar-bette and disappearing carriages. These have all been carefully inspected and their condition for service observed.

This armament has received as adequate care and attention by the artillery as possible. The barbette carriages have been very satisfactory.

As regards disappearing carriages, there does not seem to be the same unanimity of opinion among the artillery officers as to their serviceability. Although great mechanical skill has been shown in their construction, at the same time they are complicated, and much more liable than the barbette carriages to accident which would put the gun entirely out of action.

SPEEDY MOVEMENT OF TROOPS.

A speedy movement of troops is frequently of vital importance and in times of active operations often determines the success or defeat of an army. The subject is intimately associated with good generalship and deserves special study in all its ramifications. During the past few years doubtless many situations occurred requiring a rapid transportation of troops, which should be given a permanent record among the archives of military operations. An instance may be mentioned of a speedy and peaceful movement of the First Corps of the separate army at Chickamauga in August, 1898, under Col. D.

D. Wheeler, of the Quartermaster's Department, who had considerable experience in transporting troops during the civil war. It was effected without any great military exigency or pressure, but quietly and without confusion within twelve days; the movement being by rail more than 250 miles to Lexington, Ky., and 110 miles to Knoxville, Tenn., and to other, more remote and scattered, places, of 2 divisions of the First Army Corps, comprising 6 brigades and 20 regiments, and numbering 999 officers, 25,757 men, and 4,337 animals. This movement became necessary to separate the command because of infection by disease found there on assuming command, and does not include the task of providing special transportation for 500 or more furloughed sick soldiers at the same time. That the command was by the various means adopted about that time restored to perfect health and made fit for any military demand or task was a feat deserving clearest recognition. From military instruction and maneuvers in mass to hospitals and care of the sick and the well, these commands became commendable models, and the soldiers who assembled there will not soon forget its benefits.

Colonel Wheeler is entitled to credit for the efficient but unostentatious manner in which he discharged these duties. A detailed report of the movement of these troops is shown in Appendix F.

TRANSPORTATION ALLOWANCE OF BAGGAGE.

Under the necessities of campaign and in face of the enemy the Army lives and suffers as it may. But those who live a comparatively fixed life can hardly weigh aright the burden of expense and discomfort imposed when circumstances afford an occasional respite to the marching regiment and permit the presence of the family, but even steam transportation is doled out by the pound instead of the ton. The liberal treatment needed on change of station is evident and the difference between this and mere temporary travel is clear and important.

About the most trying and expensive experiences of officers of the Army is that of changes of stations in our great country. All necessary expenses of such moves should be paid by the Government, at whose will such changes of stations are ordered. The present allowance of baggage had one small increase in 1890, and another recently; but still is it not ridiculously insufficient to meet the requirements of gentlemen with a due consideration for their families? It seems to be decidedly out of date to measure the transportation allowance by the pound, a method established when the widely scattered posts on the frontier could be reached only by teams over long and rough trails through the wilderness, while there are very few stations which are not now accessible by railroads and steamers.

The relief granted officers embarking for extended service over the sea for duty is a move in the right direction, but the allowance is still inadequate even for them and should be greatly increased for all.

It is again submitted that either by weight or measure a second lieutenant when changing permanent station be allowed 2 tons; first lieutenant 4 tons; captains (they have generally served over twenty years) 6 tons; field officers 8 tons, and general officers 10 tons. The latter have comparatively few changes of permanent station and perhaps move then usually by the carload, whether or no the regulations recognize the necessity.

POST LAUNDRIES.

The question of washing the linen and underclothing of enlisted men has always been a source of more or less trouble. Formerly four laundresses were allowed to each company under the law of March 16, 1802, who were paid for their services and also received rations, quarters, and fuel, and were furnished transportation whenever the troops moved. It took about 1,300 laundresses for the entire Army, and the late Inspector-General of the Army, General R. B. Marcy, estimated the annual expense of this incumbrance to be about \$200,000, and recommended in 1875 the entire abolition, or at least a material reduction, of laundresses. The act of Congress approved June 18, 1878, prohibiting women from accompanying troops as laundresses, and the subsequent restrictions placed upon the enlistment and reenlistment of married men by Army Regulations and Orders practically annihilated army laundresses, and compelled the enlisted men to do their own washing or have it done outside the post. This seems inconvenient and unsatisfactory, and the introduction of duck clothing and linen collars added to the expense, especially in southern latitudes. Some amelioration seems due the men in the active service of the Government, and the establishment of post laundries would solve a troublesome problem and prove a strong ally to contentment, cleanliness, and appearance: and seems to call for special consideration since the habitual method of doing laundry work in running streams and without boiling increases the danger of certain cutaneous diseases in the tropics.

At the Volunteer Soldiers' Homes steam laundries do all the washing required at the Home, the number of pieces annually laundered amounting to over 6,000,000, at a total cost for labor and material in 1899 of \$21,566.50, which averaged about \$1.14 per man. At the Home for Regulars the washing for the men is done by contract, at the nominal cost to the Home of about 14 cents per man per annum, which is a marvelous reduction from former prices prevailing some seven or eight years ago, when this subject was first given publicity. In the Department of Texas laundries have recently been established in connection with some of the post exchanges, which reduced the expenses for laundry work from 60 to 75 per cent per man per month, and are very favorably spoken of. Captain Sibley, acting inspector-general, Department of Texas, reports as follows:

The main advantage of a post laundry as a department of the post exchange is that it enables a post commander to hold his men to a strict accountability for their appearance at all formations. Where the laundry work is done in the usual haphazard fashion, a man with soiled clothing can plead the neglect of an irresponsible washerwoman.

During February, March, April, and May the price charged for laundry per man at Fort Ringgold was \$1 per month, and during the summer months (June, July, and August) \$1.25 per month. There was no restriction on the amount of clothing an enlisted man could send to the laundry. This low price covered all the expenses at Fort Ringgold, where labor and fuel are cheap. During these seven months there were no solicitations by washerwomen for money due them by men for washing, while before it appears to have been of almost daily occurrence.

At every post where labor is cheap the laundry, as a feature of the exchange, should be insisted upon.

Until something better can be had the system established in the Department of Texas might well be extended to all permanent posts, as it seems to promise, under proper management, great benefit to the service as well as to the men in it. It would seem entirely practicable to run laundries at military posts without expense to the Government,

as has been done for years at West Point, where the cadets are charged for their laundry just enough to make the plant self-supporting. The expenses of running this laundry for the twelve months ending August 31, 1900, amounted to \$12,860, and averaged \$3.04 per cadet per month.

PROMPT RENDITION OF INSPECTION REPORTS.

This matter was mentioned at length in the annual report of last year in the following words:

And in the matter of handling inspection reports it is found that the reports which do reach the office are not received so regularly or promptly as was formerly the case, and some have never reached this office, thereby making the records here incomplete.

In some cases reports of inspections made on the recommendation of the Inspector-General have appeared in the public press before they were received in the office of the Inspector-General of the Army.

Can it not be fairly recognized that under the Secretary's immediate directions the inspection service and the reports thereof pertain to this Bureau, and that on it should rest the responsibility for a complete, prompt, and thorough general inspection of all branches of the military service, and the proper handling of the reports thereof as they are received in the War Department?

But where there is no central supervision of the work of detached officers there can be no certainty of uniform methods being used nor of equal attention being paid throughout the service to the more pressing details. Nor can a systematic, well-rounded plan of inspections, applicable to all parts of the Army, be possible.

If the reports of the inspections are not all received in this Bureau, there can be no complete record of the condition and efficiency of the Army available at all times for the authorities. Nor can it be expected that the defects and irregularities of the service, whether in disbursements, personnel, equipment, uniform, or transportation, will be promptly called to the attention of the Secretary of War and Major-General Commanding if this department, to which this duty pertains, is unable to get this information. However well done may be the work of the outlying officers, and however complete their reports and recommendations may be, the work is still not completely done, if no steps can possibly be taken looking to a general analysis and comparison with definite deductions therefrom as to what is needed for the good of the whole service, as decided by the Secretary himself.

Where this central supervision is lacking the work is individual only, and being exerted along several and possibly divergent lines, it loses force instead of gathering strength from the aggregation of effort as it comes together in the central office, there to be recorded and used.

It is earnestly recommended that steps be taken which will insure prompt rendition of inspection reports and their receipt in this Bureau, with as little delay as practicable.

Prior to the Spanish war the regular rendition of the reports had been absolutely assured, and the maximum delay in their receipt in the War Department was reduced to about as many weeks as it had been months; and similar excellence and promptness may again be hoped for now, when an officer on duty in this department is assigned to every point, and inspection duty receives their undivided attention without interference from other bureaus.

Repeated efforts have been made during the year to remedy the condition of affairs above referred to: with what excellent results the opening remarks in this report and the tabulations in the appendixes may fairly indicate.

Upon the first military occupation of the insular possessions, the changes in military affairs incident thereto, and the insufficient number of experienced inspecting officers available, delay might be expected in the prompt rendition of inspection reports. But as additional inspectors-general have been assigned, who are displaying their habitual energy and faithfulness in making thorough and intelligent inspections of troops, posts, transports, and disbursements, there seems to be no reason why the reports should not be as promptly received as rendered. There is an improvement over this time last year, yet it is to be

regretted that any of these important reports should not have reached this office promptly.

The effective execution of paragraph 875, Army Regulations, requires the inspector to prepare for the post commander immediately at inspection a statement in writing of every irregularity or defect observed, no matter by whom pointed out. The commander of troops should then take action and forward his supplementary report without delay, stating the remedies he has applied to irregularities or defects within the scope of his authority, together with his recommendations in respect to those which are not. On the receipt of this communication the department commander causes such extracts to be made for staff or other officers as may appear to be necessary, who thereupon render the reports required of them; and the whole series is then forwarded to the Adjutant-General for transmittal to the Inspector-General of the Army, and to be subsequently excerpted for reference to other chiefs of bureau and ultimately filed with the report. In this way the condition of the troops is clearly shown to the highest authority in every particular and it can be determined whether it is such as the circumstances surrounding them justify; and when the report is filed it is understood that the inspection is complete, and that every department and individual has done what was requisite and possible to have the troops in every respect in the best condition practicable at the time. This timeliness and attentiveness are essential elements of the most effective inspections, and any delay simply continues unnecessarily any discomfort that results for the troops.

Appendix K exhibits several tables indicating for a series of years the maximum, minimum, and average number of days elapsing between the date of the reports of inspection and the time they reach this office. These tables, which cover the examination of 1,357 reports of military posts, 882 of depots, arsenals, etc., 1,212 of property, and 1,113 of disbursements, or a total of 4,564, seem to indicate that the time essential for reports of inspections upon this continent to reach this office is less than a fortnight, and that all should habitually reach it within the month, especially if everything is found correct; and the delays at intermediate offices may not always have the same cause or meaning—for at some points the action upon the reports is just as attentive, exact, and prompt under one system as another, though generally it takes 50 per cent longer to arrive under the department than under the district system, and about three times as long through military channels as direct. During the past year the reports of inspection of military posts, exclusive of those in our insular dependencies, took an average of 47.5 days to reach this office; of depots, arsenals, etc., 12.5; of property, 22.4; and of disbursements, 24.1. Property and money can not be considered more important than men; and the reports concerning the men can doubtless receive equally prompt attention and expedition as the others if desired.

Prompt remedial action is the soul of effective inspections; and the success of the efforts to insure every command and station being in the best condition practicable at the time inspected depend greatly on timely supervision. How persistent and earnest all the personnel of this department have labored to that effect, and the results attained, may be partially illustrated by a mere comparison of the tables under the two systems, which indicate that, whatever the system of inspections adopted, all have constantly and faithfully endeavored to subserve the best interests of the service.

THE SPECIAL SERVICE SCHOOLS.

No complete inspection of these schools by an officer of this department, in so far as they are distinct from military posts, has been made since 1895, when the Army Regulations were modified so as to require specific instructions for their inspection by the Secretary of War or the Commanding General of the Army. The attention of the Secretary of War was called to this matter in 1896 and, in regard to one of them, again this year. The others seemed fallen almost into innocuous desuetude.

It is believed that a complete reestablishment and thorough inspection of these schools would be of benefit to them and to the public service. Few, if any, features of our military establishment did more to perfect and enlighten our military methods, and few are more needed for the younger officers now. The proposed war college seems suited to cap a perfect system rather than replace them. The present may possibly be accepted as approximately our new normal military situation, and its future needs should be prepared for accordingly. The artillery school is being reestablished. It is recommended that the Army Regulations be so amended as to permit their inspection by officers on their regular tours and that the authority for ordering these inspections be arranged in the same manner as those provided for by General Orders, No. 109, Adjutant-General's Office, 1898.

COMPANY OFFICERS DETACHED FOR OTHER DUTIES.

If the full complement of officers authorized by law could be kept continuously on duty with a company, no complaint could be made; but many are demanded for work in civil administration and for detached military service, while others are either sick or wounded. The consequence is that some companies are without an officer and many company organizations are left with only one officer present for duty, and that one frequently has had only a short military experience. It is hardly necessary to explain why a company diminishes its efficiency in war under these conditions. And those who remember the complaints about our Army being over-officered in peace times and having too little or insignificant duties to do may hope that the lessons taught by solid facts may yet be accepted and learned by all.

FIRST-AID PACKET HOLDER.

Maj. W. D. Beach, inspector-general, U. S. Volunteers, has designed and furnished the following sketch of a first-aid packet holder, of which several hundred were made and are now on trial in the Philippines:

In submitting the model to headquarters, Department of Southern Luzon, which was made at the Manila Arsenal through the courtesy of Capt. William Crozier, of the ordnance department, Major Beach says:

I have the honor to invite attention to the destructibility of the first-aid packages issued to the enlisted men and to recommend the following in connection therewith, requesting that this paper, with model, be forwarded to division headquarters for the consideration of the chief surgeon.

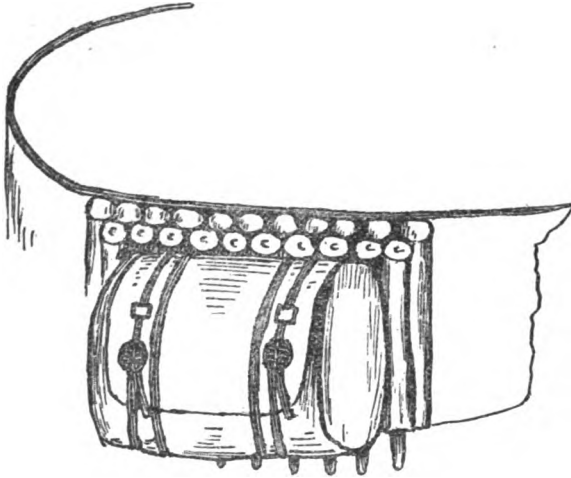
This matter has frequently appealed to me while making inspections, besides being called to my attention by the brigade inspectors of this division and by circular No. 19, Headquarters Department Pacific and Eighth Army Corps, of March 26, 1899.

The contents of the packet are not secure when subjected to the necessarily rough usage given them by the soldiers.

Various methods of carrying the package have been adopted. Some companies use the pocket of the shirt, some thrust the packet into the legging, and others tie it to the cartridge belt. All of these methods result in soon breaking open the waterproof cover, thus destroying the antiseptic properties of the compresses and bandage.

The package herewith has been in my dispatch bag (which is always carried in the field and on inspection trips) for about two months and has broken open, although it has never been wet. The life of the cover when the package is carried by the enlisted man is, of course, much less.

As a method of prolonging the life of this absolutely necessary addition to the soldier's equipment in time of active service, I would suggest a pouch made on the



Sketch of first-aid packet holder.

plan of the one herewith of some similar but better material (both strips to be similar to the one to which the ring is attached and which permits of being securely fastened in the same manner as the cinch of a saddle).

In order to insure the package being with the soldier, it should be fastened to the cartridge belt, the straps passing through the loops or thimbles as shown in accompanying sketch.

WATERPROOFING UNIFORM CLOTHING.

A brief mention was made in my last annual report as to a suggestion of Dr. Munson of a practical means for rendering the wearing apparel of the soldier impervious to rain. The method to accomplish this was by the use of wool fat, technically known as suint, or of its purified products, such as lanoline. It is known that blankets woven by the Navajo Indians from yarn spun by themselves from their native raw wool possessed waterproof qualities. In cleansing raw wool for trade purposes great care is taken to remove all fat from the fleece, in order to render the action of dyes more satisfactory; and experiments show that by restoring this wool fat in the proper proportion to a fabric made from such purified wool the waterproof properties are regained. It is claimed that this method of waterproofing has the great advantage of rendering the ordinary clothing of the soldier suitable for all conditions of weather. No appreciable weight is added, and no change for storm or sunshine is required. The parafining of campaign hats has been resorted to in the Tropics individually but successful experiments with such substances as suint may remove this necessity. The ventilation between sweat-band and hat, as issued experimentally, may then become still more important.

The press reports speak of the injurious heat in the military operations in China; and this would be partially guarded against by ventilating corks or fluted material in front of the forehead.

Experiments with this method have been going on at Schuylkill Arsenal since last November, but no final report upon its value for the military service has yet been received.

On this subject Lieut. Col. M. P. Maus, inspector-general, Department of California, reports as follows:

About three years ago I purchased in London, England, a shooting suit complete, including cap of hand-made cheviot cloth, from the natural wool, as made in the rural districts of Scotland. It was explained to me that this material was waterproof and that this property was due to the fact that the natural fat in the wool had not been extracted from it. I have worn this suit on various occasions in the rain, and have found it, as far as tested, waterproof. I therefore believe that Dr. Munson's process for waterproofing, properly applied, would give the necessary results, and should be thoroughly tested at one of our clothing depots.

MUNSON HOSPITAL TENT.

Attention is again invited to the above-named tent, of which mention was made in my last annual report.

During an inspection of troops in the West Indian Islands, made by me from January 21 to April 3, 1899, the matter of shelter for the sick was carefully inquired into, and it was said in my report:

How different the several kinds of houses are, and the marked difference in the deadly temperature even in different tents, need not be dwelt on here; but a note is given of one or two tests showing this difference of temperature.

The above paragraph attracted the attention of Capt. E. L. Munson, assistant surgeon, United States Army, and after thoroughly studying the matter he devised a hospital tent to better meet the needs of troops in the Tropics, which apparently is 10 degrees cooler in extremely hot weather than the old regulation tent, is admirably ventilated—stagnation of foul air being impossible—and gives much better protection against both rain and sun.

At the request of the Surgeon-General the Quartermaster's Department constructed a tent according to Dr. Munson's suggestions, and it was shipped in September, 1899, to Washington Barracks in this city for trial; where it was examined and favorably reported upon by the Surgeon-General and other officers of the Medical Department. My attention was invited to the matter, and I directed Maj. S. C. Mills, inspector-general on duty in my office, to make a complete inspection of the tent. His report was so favorable that I submitted it to the Secretary of War, with the recommendation that 100 of these tents be made and distributed among troops in Cuba, Porto Rico, and the Philippines for trial. There was much delay in the manufacture of them, due largely to lack of the special material required and to certain details of construction not being at once understood, and it was not until the end of April, 1900, that they were reported as ready for service. In the meantime Captain Munson gave the military authorities of the United States full rights to manufacture or purchase these tents without the payment of royalty therefor. Of the 100 tents made by the Government 50 have been sent to the Philippine Islands, 10 to Cuba, and 6 to Porto Rico for trial by the Medical Department. No reports of the results of these trials have yet been received, which, in view of the short time they have been on trial was to be expected. All reports upon the sample tent in this city have been uniformly favorable. And experiments by line officers are recommended.

It has also been favorably reported to the governments of England, France, and Canada, by officers of their military service. The chief sanitary office of the British army states that the tent is an exceedingly good pattern and the system of improved ventilation is a decided advantage over their present pattern, and it is already in use for hospital purposes by the Canadian military forces. The exigencies of service have not brought this class of tents into attention as their use for hospitals in an epidemic or after a battle in the Tropics might. But in the horrible heat in a tent of a single thickness for the sick and wounded there is something to be guarded against, and this tent has advantages that give great alleviation. Through the courtesy of Mr. Richard Harding Davis inquiries as to the English service are being made.

THE ARMY RATION.

The evolution of the army ration during the past century, in quantity and variety as well as in quality and method of preparation, until it is now superior to that furnished by any other country to its soldiers, is as remarkable as the evolution of the small arm from the slow flintlock muzzle-loader to the modern rapid-fire breech-loader with its smokeless powder and metal cartridges. A century ago the army ration comprised beef or pork, bread or flour, a small quantity of rum, and salt, vinegar, soap, and candles. Coffee, sugar, vegetables, fruits, and similar articles were not issued. Now there are no less than nine varieties in the meat component of the ration, including fish; four in the bread, seven in the vegetable, six in the coffee and sugar, and quite a number in the dried fruit and seasoning components; and the variety can practically be made unlimited by applying the savings of any of the components to the purchase of articles not on the regular ration list. Most of those on the older list are still issued, except rum—which was formerly considered a desirable stimulant for men engaged in fatiguing or hazardous occupations—but their allowance has largely increased. And if the former ration was considered sufficient in quantity for the average man, the present ration, which has about doubled, should give no cause for complaint, especially while the profits of the “exchange” add about a pound to the food of many. Great advances have also been made in the method of preparing the food, and cooks are specially enlisted to make the most of the articles placed at their disposal, so that the present diet of the soldier is vastly superior to the limited choice formerly offered. But conditions are not always favorable to use the ration to the best advantage, and service in the field under a tropical sun has been attended by so many complications of the food supply that Col. C. A. Woodruff, of the Subsistence, and Capt. E. L. Munson, of the Medical Department, were each led to prepare and publish an article on “The ideal ration for an army in the Tropics.” Extracts of these papers are given in Appendix J, and attention to them is invited for detailed information.

Sugar or sweets seem to be much craved for in the Tropics, as was pointed out in my report on conditions in Cuba in 1899; and recently the public press contained an interesting article on some experiments made with sugar by a surgeon in the German army, which seems to have a direct bearing on the question of food for soldiers, and is quoted as follows:

Dr. Leidenstorfer, a military surgeon, has recently been making experiments with sugar in the German army. Believing that it would prove a great aid toward the

maintenance of the physical strength of soldiers, he added from 50 to 60 grams of sugar daily to the rations of certain men, and as a result he found that they became much more energetic than their comrades; that they suffered much less from hunger, thirst, and fatigue, that their pulse was less rapid and stronger, and that cases of exhaustion were much less frequent among them than heretofore. The conclusion at which he arrives is that sugar, though it is evidently not a fitting food for neurasthenics or for those who are depressed and who are obliged to lead a sedentary life, is yet admirably adapted for huntsmen, soldiers, and all others who live much in the open air, the reason being because sugar has in it those very properties which their constant activity and energy require.

UNIT OF ARMY EXPENDITURES.

The distinction between the expense to the Government and the receipts of the individual soldier whenever there is an increase of force has led to a conventional estimate that soldiers practically require the disbursement of about \$1,000 per man per annum, perhaps because this amount most nearly approximates in round numbers the ratio between the enlisted strength of the Army and the annual Army appropriations; and for purposes of a general offhand estimate it may serve to give an idea of the amount required to maintain an army of definite strength—though of course the soldier individually receives no such sum.

From an examination of the amounts expended during the past five years, taken from three different sources, viz, the ledgers of the War Department, the annual reports of chiefs of Bureaus, and the combined statement of receipts and disbursements published annually by the Treasury Department, the following table indicates approximately the average annual cost per enlisted man, found by dividing the total expenditures considered by the average number of enlisted men in the Army. The difference in the results obtained from the various sources available may serve to show differences in classifying or summarizing annual expenditures and some consequent difficulty in segregating in all cases similar classes of expenditures; though, as a rule, the pay, etc., of the Army, mileage, transportation, barracks and quarters, clothing, camp and garrison equipage, horses, subsistence, care of sick, and arms and equipments have been considered, and expenditures for fortifications or their armament excluded, as far as it was practicable to draw such distinctions.

Fiscal year.	Average number enlisted men.	Average per enlisted man under the following figures.			Approximate average from these figures.
		War Department ledgers.	Annual reports.	Treasury statements.	
1896.....	25,159	\$886.52	\$1,071.26	\$957.15	\$971.66
1897.....	25,331	880.97	1,036.04	887.11	934.71
1898.....	50,783	1,170.46	1,218.68	1,088.62	1,159.26
1899.....	162,224	1,595.80	1,140.71	1,194.54	1,310.35
1900.....	96,674	1,017.73	.....	1,011.61	1,014.66
Average.....	72,084	1,280.85	1,139.05	1,092.30	1,173.85

The following table shows the averages for two years of peace (1896 and 1897) and two years of war (1899 and 1900):

Fiscal year.	Average per enlisted man under the following figures.			Approximate average from these figures.
	War Department ledgers.	Annual reports.	Treasury statements.	
Peace	\$882.86	\$1,053.57	\$922.08	\$953.12
War	1,379.95	1,140.71	1,126.23	1,226.28
Increase	497.39	87.14	204.20	273.16
Per cent	56.3	8.3	22.1	28.7

The increased expenditures of war are readily understood from the unusual conditions of waging war simultaneously in two hemispheres many thousand miles apart; and it is evident that the maintenance of troops in distant lands is more expensive than at home and must increase the average cost per man. The year of preparation for war also adds many incidental expenses for arms, animals, etc., that may not be wholly worn out in a single year.

Of course, the figures are only tentatively presented from sources most readily accessible; but they may serve to show that it is entirely practicable to obtain the average cost per enlisted man of maintaining the Army; and doubtless such information can be accurately furnished by the departments disbursing the various funds, not only in their aggregate expenditures, but in the several items composing it. Apparently the difference between war and peace expenses is about \$300 per annum or about 25 per cent; and we have returned nearly to our normal peace basis. And with full organizations the average per man is diminished.

DRINKING WATER.

As General Tidball, now on the retired list, had a handy water cart with his command during our civil war, he doubtless can tell what steps were taken concerning such effective methods of supplying an essential of human life. That old incident is recalled by the following extract from a recently published private letter of First Lieut. A. U. Loeb of the Ninth Infantry and from the New York Sun's account of the taking of Tientsin.

Lieutenant Loeb says:

It was impossible to get troops to us, and we lay all that hot day in salt water and mud up to our waists. Water gave out, and the men in their frenzied attempts to quench their burning throats would drink that dirty salt water, supplying it in short mouthfuls as it eddied about their forms.

The Sun's correspondent reports:

One thing this day should teach the American Army one little thing of great importance. I have seen six different breeds of men go into battle to-day. Every one of them except the American had some contrivance for getting extra water to the field. It has been a fearfully hot day and the men have suffered greatly for water. Our men are notoriously prodigal of the contents of their canteens. They hadn't been on the line two hours before they were running out and the cry went up for more. But there was no way to get more. The British, French, and Japanese had their donkey carts or mules packed with breakers, but the Americans had nothing and their men had to suffer and stand it as best they could. It is no very great reform to make but it counts afield.

THE GALVESTON STORM.

In connection with the recent destructive storm of September 8, which caused such appalling loss of life and property at Galveston and vicinity and for the time overshadowed all other events, the following extracts from the report of an inspection of Camp Hawley and its sub-posts, Forts Crockett, San Jacinto, and Travis, forming the fortifications of Galveston, made April 26 to 30, 1900, by Capt. F. W. Sibley, acting inspector-general, Department of Texas, may be of interest:

Camp Hawley. Camp Hawley is located north of and adjacent to the western part of the Fort Crockett reservation, on 45 acres of land leased in October, 1899, by the Government for one year from the Galveston Land and Improvement Company at a nominal rental of \$1, with an option of a second year at the same price.

The post is a temporary one, erected to shelter the command until permanent quarters can be erected at Fort Crockett. It has been but recently completed, and consists of frame buildings, board and batten sides, and roofed with boards, asphalt, and shells. The buildings consist of:

Nos. 1-3, officers' quarters; No. 4, commissary building; No. 5, hospital; No. 6, quartermaster's office; No. 7, wagon shed and stable; No. 8, administration building; No. 9, barracks; No. 10, guardhouse; No. 11, mess hall; No. 12, bath house and wash room; No. 13, bakery; No. 14, latrine; No. 15, quartermaster's storehouse.

These buildings are comfortable, raised on piles about 2 feet above the ground, are well ventilated, and sufficiently warm for the winters of this climate.

Fort Crockett. Formerly City Beach Battery: This battery is situated about 5 miles from the entrance to Galveston Bay at the extreme southern end of the line of defenses of the city of Galveston. It is one of the most important of the defenses of that city.

The soil is gulf sand, overlaid with 6 to 10 inches of sandy loam, covered with a thick sward of evergreen grasses. The land is as high as any in the city, being some 6 feet above mean low tide. A shallow bayou about 100 feet wide comes in from the north or bay side of the island, nearly dividing the reservation in two. It will be necessary to fill this bayou to the surrounding level by pumping sand from the gulf.

The fort is readily accessible, being connected with the city by well-paved streets, a line of street cars, a telephone line, and an engineer's switch which connects with the main railroad lines entering the city.

Owing to the time it will require to fill in the bayou, it is now proposed to erect only sufficient buildings to accommodate the officers and men of one battery, and to have these buildings so located as to permit of their construction without filling this bayou.

The works of Fort Crockett consist of three batteries.

The first battery is completed, except connections with electric dynamo.

All property is in charge of a care-taker detachment, detailed from Battery G, First Artillery, consisting of 1 sergeant and 5 privates. This detachment is housed in a temporary three-room wooden dormitory having capacity for 12 men.

There is also a well-constructed three-room storehouse for signal property, ordnance stores, and mathematical instruments. These buildings are frame, are raised on piles about 10 feet above the surface of the ground and are well adapted to the purposes for which they are used.

Fort Jacinto. This fort is located on the extreme eastern point of Galveston Island, on a low-lying tongue of sand extending into the entrance of Galveston Harbor. There are four batteries constructed here, which stand in order from right to left.

The buildings provided for the use of the detachment are similar to those furnished at Fort Crockett, and consist of dormitory, three rooms, two being used for non-commissioned officers; mess room and kitchen; storehouse, three rooms; oil house for paints and oils. These buildings are frame, well built, suitable for the uses intended, and are on piles about 10 feet above the ground.

Suitable buildings in good repair for a garrison of about 65 men, consisting of barracks, officers' quarters, storehouses, etc., are completed and have been completed for eighteen months, but are not habitable, by reason of the fact that they are located on piles and raised to a height of about 10 feet above mean low tide, with water at high tide flowing under the buildings. This post, which is about a mile from the batteries, was built before the site was prepared.

It will require about 400,000 cubic yards of sand to fill in this site alone to a height

of 7 feet above mean low tide. The tide here has a range of about 18 inches, but after heavy eastern storms has been known to rise over 8 feet. About 25 per cent of the fill above referred to has now been made. It is estimated that the site will be filled to 7 feet in about one year's time. The original scheme contemplated the filling in of the entire reservation to the level, and it was estimated that this would take about 4,000,000 cubic yards. While this should be done eventually, the post can be occupied satisfactorily on the filling in of the post site proper.

Bolivar Point: This fort is on the mainland directly opposite Fort Travis. Fort San Jacinto, distant $1\frac{1}{2}$ miles. This reservation is quite low, but somewhat higher than the other. This fort consists of two batteries.

The care-taker detachment consists of 1 sergeant, 1 corporal, and 5 privates.

There is a new wharf being constructed here, 400 feet out to $5\frac{1}{2}$ feet of water, to cost \$3,250.

A commercial cable connects the post with the city of Galveston. A military railroad connects the town of Bolivar with the post and makes connection with the main railroad lines.

THE DEPARTMENT'S DEATH LIST.

During the year death took from the inspection corps three officers who were among its most useful members.

Lieut. Col. John D. Miley, inspector-general, United States Volunteers, was the first of the corps to die during the fiscal year. He died at Manila, P. I., on September 19, 1899, "with the harness on," his end apparently hastened if not brought about by his unflagging industry and unremitting efforts in the service of his country while doing double work. He was a gallant and brilliant young officer, whose life had been one of constant endeavor, devoted conscientiously to the faithful performance of duty. How distinguished a part he took in the Santiago campaign is indicated by the recommendation that while a lieutenant of regulars he should be made a brigadier-general of volunteers. And the chief of this department recommended that he should be given an opportunity to round out his career by further service with the line in campaign when the present volunteers were organized.

Maj. Frank H. Edmunds, First United States Infantry, acting inspector-general of the Department of Havana and Pinar del Rio, Cuba, died at Quemados de Mariano, Cuba, on June 18, 1900, of yellow fever; and the service was thereby deprived of a conscientious and accomplished officer of the highest promise, whose record in the Army stamped him as a man of marked ability, who performed all his duties with an industry and zeal far above the average. As an officer and a gentleman his merit was so evident that those who mourn for him mourn as becomes the most worthy.

That gallant and honored soldier, Col. Henry W. Lawton, inspector-general, major-general of United States Volunteers, after a long and distinguished career in the military service of his country—a service in which he performed many varied and arduous duties, and all with marked ability, and was trusted to the utmost by soldiers and civilians in high authority or subordinate to him—fell at the battle of San Mateo, near Manila, P. I., in the very moment of victory, on December 19, 1899. His life of devotion to his country was thus crowned and glorified by the supremest sacrifice that any man can make; and he can never be forgotten by those who esteemed him most. "What we have done for ourselves alone dies with us; what we have done for others and the world remains and is immortal."

He served with a whole and loyal heart most strenuously through many years in devoted service for his fellow-countrymen, and at last won their kindly affection and brought credit to the whole military

service at his death. The estimation in which his services were held and valued by his countrymen may, in some part, be measured by their spontaneous and generous action when he had offered up his life upon the altar of duty; and those who mourned him embraced every class, from the highest to the lowest. A brief synopsis of his strenuous life and his faithfully performed duties is set forth in the obituary published by the Inspector-General on December 21, 1899, which is reproduced in Appendix G, with the obituaries published by the Inspector-General on the occasion of the deaths of Lieutenant-Colonel Miley and Major Edmunds.

INSPECTION SERVICE.

Throughout the year there has been marked activity in the Inspector-General's Department, as shown in both hemispheres by the important and large number of inspections of money, property, men, and places. And the hope and tendency toward improved service is indicated by the resumption of the inspection of military colleges and inauguration of inspections for the transport service, which show a progressive spirit and warrant the hope that these duties meet the approval and support of higher authority; and evidently this is essential to steadily secure successful results. That inspections are not always desired, but sometimes meet both open and occult opposition, goes without saying from the very nature of the case and the characteristics of erring and grasping humanity. But it is believed that all defects and criticisms reported by inspectors now generally receive remedial action from all others wherever possible; and, under the support and encouragement received, despite the difficulties and delays and untoward interference, the results achieved are decidedly improved over the preceding year. The Army is reported as well supplied with clothing and food and equipment, and conditions generally are very satisfactory. Perhaps there is less opportunity and more difficulties in maintaining the old perfect military instruction and discipline, and more of the junior officers have not attained the perfect training which prevailed when more of them had prior military training and were graduates of the Military Academy and the service schools at Leavenworth and Riley were in operation. But this is incidental to the transient situation and will be more than remedied in time, and the present experience in war and field service is particularly instructive.

As to the Inspector-General's Department, it is sincerely hoped that it may be placed upon a permanent and independent basis before many years roll round. Its services this year have been interesting, far-reaching, and intensely effective; perhaps especially so in that branch which affects disbursements and property. But in such scenes as your last review of the volunteers in San Francisco before their departure for the Philippines, when you permitted me to accompany you, and in their inspections in Asia afterward, and in such sharing of their hardships and dangers as is indicated in the deaths of General Lawton, Colonel Miley, and Major Edmunds, the duty of this corps in connection with the troops has a definite demonstration and a certain interest and effect which we hope will still meet with your approval.

Respectfully submitted.

J. C. BRECKINRIDGE,
Inspector-General.

The LIEUTENANT-GENERAL COMMANDING THE ARMY.

APPENDIX A.

INSPECTION OF MILITARY POSTS AND COMMANDS.

The following table shows the aggregate strength of commands and organizations of all arms inspected one or more times during the fiscal year ended June 30, 1900:

	Officers.	Enlisted men.	Total.
United States.....	2, 324	49, 944	52, 268
Philippine Islands	2, 476	69, 266	71, 742
Cuba	885	9, 643	10, 028
Porto Rico	31	977	1, 008
Total	5, 216	129, 890	135, 046

The inspections in the United States were distributed among the several geographical departments as follows:

Departments.	Officers.	Enlisted men.	Total.
California	61	1, 440	1, 501
Colorado	66	1, 815	1, 881
Columbia	28	746	774
Dakota	54	1, 250	1, 304
East	a 647	b 7, 136	7, 783
Lakes	47	1, 010	1, 057
Missouri.....	74	1, 714	1, 788
Texas	23	958	981
United States Volunteers.....	1, 324	33, 875	35, 199
Total	2, 324	49, 944	52, 268

a Three hundred and ninety-nine officers and cadets at West Point, N. Y., inspected by General Breckinridge, included.

b Three hundred and ninety-five enlisted men at West Point, N. Y., inspected by General Breckinridge, included.

U. S. VOLUNTEERS.

Of the U. S. Volunteers, all the regiments were inspected in the United States before their departure for the Philippine Islands, except the Thirty-fourth. An inspection for this regiment was authorized, but it was ordered to San Francisco and left the country before the inspection was made. The Twenty-sixth Regiment, U. S. Volunteers, was ordered inspected, but owing to the want of officers available at headquarters Department of the East to make a detailed inspection, the department commander visited and looked over the regiment himself, but no written report of his observation has been received in this bureau. The following of these regiments were inspected twice before leaving the United States, viz: Thirty-fifth, Thirty-eighth, one battalion of the Thirty-ninth, Fortieth, Forty-second, Forty-fourth, Forty-fifth, Forty-sixth, Forty-eighth, and Forty-ninth; and one battalion of the Forty-fifth was inspected three times. Owing to the great importance of these inspections and the limited time available for the work, it was found to be impracticable to have the inspection made in each instance by an officer of this Department, either of the permanent establishment or detailed therein, and so seven of the inspections, or a little less than one-fourth of the total number, were made by officers specially detailed for the purpose.

The reports of these inspections generally indicate a good, and in some cases, excellent state of discipline and satisfactory progress in the organization, equipment, and instruction of the troops.

The speed with which these organizations were equipped and clothed without awaiting preliminary requisitions, and the skillful and energetic manner in which they were organized and instructed and disciplined won the remarkably hearty and

almost unanimous commendation of these experienced inspectors. The review at the Presidio of San Francisco by the Lieutenant-General Commanding the Armies of the United States of the later regiments closed the series most effectively with marked credit to the line and staff which had helped in a work so quickly and well done. The regiment which sailed from Fort Vancouver had a night formation added to its preliminary experiences. These regiments constituted a command from which, if it could work together in a single campaign or battle, everything could justly be expected that is ever demanded of soldiers. The salutary influence and wholesome effect upon organizations under the command of such carefully selected and accomplished officers, which must necessarily follow upon the heels of the first sharp, penetrating, incisive inspection, covering every sphere of military affairs, reported with rigid impartiality, bestowing praise where deserved, and pointing out any unsatisfactory conditions requiring the attention and direction of higher authority, can hardly be overestimated. This is one of the first duties assigned and supported by the present Secretary of War, and it is believed its beneficial effects have not been lost but affected these regiments throughout their brilliant military career. It seems odd and illustrative of our war methods of short enlistments, that the induction of these regiments into the service can be formally considered at the time their exit is being prepared.

MILITARY POSTS IN THE UNITED STATES.

The inspection of garrisoned posts in the United States by the officers of the Inspector-General's Department has been fairly complete where undertaken during the fiscal year. The work was entirely completed in six of the geographical departments and completed, with the exception of one post each, in two departments, viz, Honolulu, H. I., Department of California, where some unhealthfulness of situation was mentioned in the previous inspection report, so a new one was anticipated with special interest, and Wallace, Idaho, Department of the Columbia. The latter station was not garrisoned until after the completion of the tour of the inspector-general of the department. The eight posts in the newly established Department of Alaska were not inspected, but orders were requested, and at one time approved, for an inspection there, and now Captain Tutherly is assigned there as acting inspector-general.

An examination of the reports indicates thoroughness and efficiency on the part of both the inspectors and inspected and commendable zeal and ability in the performance of their duties. Inspections by officers of experience, tact, and judgment are not without importance, even under the military conditions which prevail in the United States at the present time, and their abilities find an opportune field. The frequent changes in the garrisons, which are small at a large majority of the posts in this country, and the frequent changes resulting in commanding officers, which permit the exercise of command by one officer for brief periods only, and the youth or recent appointment of some doubtless produce results and conditions occasionally requiring watchfulness and care on the part of all concerned.

Owing to the frequent changes in the garrisons and the comparative denuding of some posts, the command of posts has devolved upon a large number of officers, some of whom are comparatively young, and some injury may have occurred; but, considering these circumstances, the conditions are reported more than fairly satisfactory. The law, regulations, and orders are generally reported properly enforced. All orders and instructions are reported to be duly promulgated, and justice legally, promptly, and impartially administered. The system of instruction is reported to be faithfully observed and carried out where means and opportunity permit; and this has become of more than usual importance under the large percentage of recruits at present and the overweighted condition of some garrisons and the sudden calls made for troops. Public property, as a rule, has been reported properly protected and cared for, though the labor involved in some instances may have interfered with other exacting military duties on account of the small number of troops available for the work. Excluding the transient volunteers, the number of our regular soldiers on the American continent has hardly been so small since 1861.

The military instruction of the troops is generally reported in a fairly satisfactory condition. The purely military duties have been hampered in some instances on account of the small force available at many of the posts, and the prescribed instruction interfered with to some extent by the requirements of indispensable garrison duties. How far the care of the property must interfere with the discipline and military instruction of the men may occasionally become a more serious question than is shown in the inspections. Possibly the law might allow utilizing retired soldiers as care takers for temporarily abandoned posts. The reports indicate that ranges for small arms-target prac-

tice are provided at a large proportion of the posts, either owned by the Government or rented; many of them are reported to be excellently adapted for the purpose, and fully and completely equipped, while the location of a few is reported as unsatisfactory, and some others do not provide sufficient facilities for long-range practice. Small-arms target practice is reported as having been held during the year at a large majority of the posts. At a few posts it is reported that no practice could be had on account of the small garrisons being continuously employed in mounting, cleaning, painting, and caring for the heavy guns. Practice was not had at one post, owing to the absence of the command during the prevalence of yellow fever. The importance of providing more fully for hasty intrenchments, night or field work, target practice with small arms at moving targets, should doubtless receive consideration, as the instruction of the troops in these particulars should be thorough and complete in order to fully prepare them for service in fields where there is a general lack of facilities for such practice other than actual campaign work; and experience is a hard taskmaster. The enemy does not display any interest in giving our men the best opportunity to practice and improve marksmanship under the easiest and most advantageous circumstances.

Lieut. Col. Philip Reade, inspector-general, Department of Dakota, states:

Parades and ceremonies. "Fewer parades and ceremonies and more field exercises are required.

"The tendency of National Guardsmen and of new volunteers is to pay more attention to reviews, etc., than to field exercises, or problems in minor tactics. Environments seldom permit of the latter. As a consequence, the new citizen soldier is prone to attach an exaggerated importance to nonessentials of a soldier's duty.

"Practical problems in minor tactics are always necessary to advance the instruction of our volunteer troops. They are, however, seldom exercised in executing plans devised for their action in time of war. Sham battles are spectacular, but are not instructive. They are generally subversive to good discipline. Our citizen soldiers, also some of the troops of the regular establishment which I have inspected, lack the experience approximating as nearly as possible to what would have to be confronted in war time.

"Periodical mobilization and maneuvers should include more of the actual preparations for and doings of war; parades and ceremonies should be fewer. The efficiency of a command is not best indicated by its appearance during occasions of ceremonies or dexterity and unison in executing manual-of-arms movements."

The ceremony of dress parade has been greatly improved, but is not yet as interesting as that of guard mounting. The introduction of the bayonet exercise there has been tried and found perfectly feasible, and much more beneficial and effective than the manual of arms. Special reports from all officers serving in China on the drill and methods of the several foreign nations there is recommended. And a new drill book, at least for the infantry, is recommended.

Commissioned officers. The reports indicate the prevalence of harmony and good will among the commissioned officers. The assurance of painstaking and energetic work on the part of officers of all ranks serving at posts and their possession of zeal and ability of a high order in the particular duties to which they have been assigned is indicated by the large number who have received special mention from the inspectors. The number of those who have been unfavorably commented upon is extremely small and hardly an appreciable factor, which is all the more remarkable when the large number of those recently appointed from civil life is considered.

Enlisted men. The character of the recruits enlisted during the year is generally reported satisfactory except in a few instances of those for the artillery arms, where the lack of special qualifications in the line of education has been commented upon. The requirements of this arm of the service in this particular are unusually exacting, and in order to secure the best available material and put the artillery upon an equal footing with the cavalry and infantry arms, the question of some suitable recognition of the greater demands of the artillery service in the way of more liberal compensation might well be considered.

Discipline and behavior of troops. The reports indicate that the discipline and behavior of the enlisted men of the Army is generally very good, that the tone of the men is fairly satisfactory, and that they give unquestioned obedience to authority. The willingness to obey and perform every duty assigned and exacted is evident; the habit of rigid, intelligent, and helpful obedience comes with practice under skillful supervision. The opponents our soldiers have recently met may not be as instructive and exacting as formerly; but what the occasion has demanded from our soldiers in foreign service has been more than adequately responded to, and our problem is to keep up to the old standard.

Military signaling. Military signaling has generally received attention at posts where time and opportunity was afforded. The prescribed instruction in this branch of military work has been entirely prevented in some instances and interfered with to a more or less extent in others by the pressure of other exacting duties. The value of expert and efficient signalmen of experience and ability in the rapid exchange of signals by the usual methods can hardly be overestimated. Whether the desired results can be obtained under the present system, or greater efficiency secured by an absolute departure from it, may be a question requiring thoughtful consideration. In this connection the acting signal officer at Fort Sheridan, Ill., makes the following suggestions: "That signaling, and everything pertaining to it, be put in the hands of the Signal Corps only. As managed now it only serves to take officers and men from their proper duties to half learn something they will never use, if the Signal Corps performs theirs." And that the Signal Corps does perform its duty admirably and prepare for it as perfectly as military prevision and indomitable energy can accomplish has been demonstrated around the earth on every scene of military activity.

Athletics. Many of the posts are not provided with gymnasiums. This need is not, perhaps, so severely felt now as formerly, owing to the large amount of fatigue duty and other work required to be done by garrisons reduced to but a fraction of their normal strength. These abnormal conditions are, however, but temporary, and until the Government provides a well-equipped gymnasium and drill room at each permanent post the physical training of our soldiers, especially in the winter months, can not be expected to receive the attention its great importance deserves.

Messing. The company mess system prevails very generally at garrison posts throughout the United States. The general mess is maintained at a few of the larger posts. The reports indicate that the food has been supplied in sufficient quantity and variety, that the quality has been good, and that it has been properly prepared and served. The general excellence of the bread baked in so many of the post bakeries has become proverbial, and, doubtless, every effort is being put forth by those specially and directly concerned to attain equal excellence in respect to all other components of the ration, especially in the field. Perhaps no other single item of the soldier's needs bears so potently upon his effectiveness in campaign and battle than that of the sufficiency and suitability of his food; and only while this paramount necessity is absolutely provided for and fully maintained can the soldier be expected to do his best work. And it is believed that no other army is better supplied nor given as generous an allowance as ours; and the enthusiastic and soldierly energy and skill with which the Subsistence Department is performing and pressing forward its duties deserve every recognition.

Post lyceums, and schools for officers and noncommissioned officers. The operation of these have been impaired somewhat by the demands of war and foreign service and the small number of officers on duty at some of the posts; but at others lyceums, with approved schemes of instruction, were properly inaugurated, even though the sessions were interrupted by the subsequent departure of officers. Where a sufficient number of officers has been available the lyceums have been properly conducted and a commendable degree of interest manifested. The regulations in regard to the maintenance of schools for noncommissioned officers have been observed as well as practicable under the circumstances.

Post schools. The reports indicate that the sessions of post schools for enlisted men have been interfered with in some cases, and entirely prevented in others, by various causes; among which may be mentioned small or unsettled garrisons, and no suitable room for the purpose. At one post it is reported that there was no post school owing to sickness among cavalry troops just coming from Cuba; at another there was no competent teacher. They appear to have been maintained throughout the Army in accordance with the prescribed regulations at about 30 per cent of the garrisoned posts. Excellent progress and satisfactory interest are reported at some posts, while at others little or no interest is manifested. At one post it is stated that "it being impracticable for men to attend school except when off duty, satisfactory progress, especially in the elementary classes, is hard to obtain." The army as a school is a distinct feature in every civilized country and leaves its impress upon the national life, history, and characteristics. But the school is very different in war and peace. And full-grown men, with plenty of red blood in their arteries at their country's service, are apt to prefer campaigns or assaults upon the walls of Peking or Tientsin to the four walls of a schoolroom, though doubtless there is reason in both.

Post exchanges. Post exchanges are reported in operation at permanently garrisoned posts, and appear to be conducted in accordance with the prescribed regulations. Their success and practical utility seem to be unquestioned. Sales of liquor are confined to that of "soft drinks," beer, and light wines

under fairly effective official supervision, which are dispensed by civilians employed for that purpose. This is certainly a great improvement upon the old sutler's régime which it supplanted and which still needs to be guarded against even in disguised practice. The sales of other stores are a marked feature of the institutions and is a great benefit to frontier soldiers while zealously and wisely conducted and such stores are not equally, generously, and considerately supplied to these exiled soldiers through any other organization. A volunteer regiment had, when I inspected it, about \$8,000 worth of stores in its regimental exchange and not a drop of alcohol. Suitable buildings for the accommodation of post exchanges are not provided in all cases. It appears to be the consensus of opinion in the Army generally that the present Exchange Regulations promote the morals, temperance, discipline, and health of the men as compared with what they were practically before, and it would prove a great deprivation to deprive them of the "exchange," and that the best interests of the service require its retention. The Moslem idea, that there is sin in wine, would still further limit that class of sales. But the change from the days when whisky was one of the articles issued by the Subsistence Department, to the present veto of the sale of distilled liquors upon any military reservation, is decidedly pronounced and beneficial. Now Army officers compare favorably for sobriety with most of the learned professions, and the enlisted men equally favorably with most of the trades. Soldiers are not all ministers of the gospel; but what they do minister to is done well and has won the favorable comment of those who know them best. Some prejudice against them may have existed in bygone times, and a residuum of it still continues, as they are only men without women or children in their legal organization. But they are relied upon for their proper purposes; they are flesh of our flesh, and such as they are they are not unworthy. And their wants deserve sympathetic and patient consideration; not for their vices, which are abundant also in civil life, but for their needs in their life of isolation, hardship, and danger. The choice between the old reign of sutlers and our present system has been wisely and morally made. If something still better is possible, it also deserves fair consideration. The late Colonel Heyl, of this department, is believed to have had great influence toward the legal increase of the ration; and the "exchange" has also increased it where it exists. How much the improvement in the quality and quantity of the soldier's food has diminished his desire and tendency to drink since this increase occurred, may also deserve recognition.

Lieut. Col. Philip Reade, inspector-general, Department of Dakota, states:

"It is advisable that a fixed percentage of the net profits of the exchange should be, by order, set aside for the specific purpose of recreation, supplies, prizes, etc."

Quartermaster's department.

The administration of the affairs of the quartermaster's department at posts is generally reported most excellent, and the number of officers detailed for duty therein who have been favorably reported upon by inspecting officers is a guarantee that the affairs of this important department are in the hands of live, capable, energetic men. How much was learned and how much experience was gained in the performance of these rudimentary and fundamental duties of supplying soldiers under our methods was demonstrated under trying exigencies, and probably no command of regulars in the field was found without some officer who had proved his excellence at the work. Stores are usually reported to be adequate and of good quality; and in all cases where complaints have been made they have been called to the attention of the proper authorities. There appears to be a very general desire for a revision of the supply table for veterinary medicine, dressings, and instruments, in order that the requirements of more modern veterinary surgery and therapeutics may be properly and adequately met.

Some of the troops in the United States are reported in large, airy, commodious buildings; others are in temporary structures, and a few are in tents. Casemates are still utilized for this purpose at a few posts, though strongly criticised. The public buildings appear to have received the usual repairs during the year. Deterioration and decay have doubtless been more rapid and marked during the recent past than formerly, owing to the general want of a sufficient number of men to properly care for the buildings and at the same time perform their other necessary military duties. A number of new buildings have been erected at some posts and new structures are needed at others. The following extract from the report of inspection of San Carlos, Ariz., by Lieut. Col. W. H. Boyle, acting inspector-general, Department of the Colorado, may be of interest:

"The barracks (No. 19) consist of 16 frame shacks, each with a capacity of 8 men. They are neither lined nor sealed and are very cold in winter and extremely warm in summer, without verandas or shelter for the men. On occasions of sand storms, which frequently occur at this post, the sand blows into the building and there is no way of protecting the men's clothing from dust and dirt. If troops are to be continued at San Carlos (and they should be, as it is one of the most impor-

tant posts in the territory), new barracks, of ample accommodations, should be constructed; also new quartermaster and commissary storehouses."

How greatly the design and comfort of the barracks have been improved in the Army generally should be one of the glories in the progress and present condition of the Quartermaster's Department, which, in so many items has liberally helped on the comfort, contentment, and healthfulness of the men. The increased air space alone is a boon; and in almost every detail, from cleanliness to clothing, the same spirit prevails.

The reports indicate that the water supply at the posts is fairly satisfactory in quality. The quantity is not in all cases sufficient for all purposes, especially during the hot, dry season. In the arid belt the stations present great difficulties sometimes in this respect. The sewerage and drainage have been reported fairly satisfactory at a majority of the posts, and steps looking to the improvement of the system have been inaugurated at others. Lieut. Col. W. H. Boyle, acting inspector-general, Department of the Colorado, states:

"I found the water system at the several posts very inadequate, particularly as a protection against fire. A number of fires have occurred in the department during the past year, and in nearly every instance valuable public property was destroyed for the want of a properly constructed water system. It would be economy to build a complete system at every post, and in addition supply the necessary fire apparatus, as at present when fire occurs public property is almost wholly at the mercy of the flames. Many of the posts are not properly drained. It would add to the health as well as the great convenience and comfort of the garrison if a complete sewer system were constructed in connection with a water system. Especially should these conveniences be provided for officers and their families and the enlisted men at posts isolated as are several in this department, where there is so little to add to their comfort."

At one of the newly garrisoned posts on the Atlantic seacoast, the surgeon reports the sanitary condition of the posts bad, and that if the swamps on the reservation could be filled in the posts could be made healthful. Communication with posts is not satisfactory in all cases. It is reported that at Fort Greble better communications with the mainlands should be provided both by water and telephone. At Fort Hancock a suitable steamer is desired for the permanent use of the post. The means of communication are reported insufficient at Fort Warren, where a steam tug or launch—a larger boat than the one now in use—is needed for the use of the officer commanding the defenses of the harbor. Wherever men live constantly without such public conveniences as street cars and commercial steamboats the transportation should be liberal, whether by land or water, and a soldierly sense of concert, concentration, and mobility should be steadily instilled.

Lieut. Col. Philip Reade, inspector-general, Department of Dakota, states:

Tents. "Shelter halves should be made 12 inches longer. Wall tents should be provided with pockets; pockets to have flaps and to be located below the eaves' line; hospital tent, ditto. These pockets should be large enough to keep toilet articles in; pockets to have flaps and to be placed one on each side, and a double pocket at back below the eaves' line. Double flies and false bridge for both wall and hospital tents are recommended for tropical service. All tent flies should be made longer than the tents they are intended to cover."

Lieut. Col. M. P. Maus, inspector-general, Department of California, reports:

"It is recommended that shelter tents be made of stronger and thoroughly waterproof canvas, brown in color."

Lieut. Col. W. H. Boyle, acting inspector-general, Department of the Colorado, states:

Hay and straw. "A great deal of hay and straw has been destroyed by fire or so damaged by weather as to become unfit for issue. This is occasioned by deliveries being made at the pleasure of the contractor, necessitating stacking the hay and straw in the open. I am of the opinion that it would be a saving to the Government to have a contract so worded that deliveries should be made in such quantities and at such times as called for by the post commander, even though it occasioned a slight increase in the contract price. In that way hay and straw would be delivered in such quantities as could be properly stored in the buildings provided for the purpose. The same course should be pursued in providing coal."

Lieut. Col. M. P. Maus, inspector-general, Department of California, reports:

Clothing. "As the United States Army is required to serve in various parts of the globe and in all kinds of climates, the suitability of uniforms for the various services has become an important consideration. It has been recommended in a former communication that at large posts,

as the Presido, Fort Leavenworth, Fort Monroe, etc., post tailor shops should be established, where clothing can be issued, or the material furnished, by the Quartermaster's Department, cut and fitted to the soldier. Such uniforms would last much longer, would greatly add to the smartness and general military appearance of the soldier, and relieve him of a burden in the heavy cost of having alterations made to that now issued to him; or, if not altered, to prevent the wearing of badly fitting and slouchy looking clothing.

"Frequent inspections have shown that blouses and dress coats are often cut too low. It is also noticed that the chest measurements for both dress coats and blouses are frequently too small and not suitable for a well-developed soldier. I have noticed blouses cut so low in some instances as to show the hair growing on a man's breast.

"The collars of dress coats are also cut too low in many cases, and too short to go around a man's neck, leaving it open in front and exposing the throat. Where the collar is worn so as to close the aperture in front there is often an opening below the collar where the bare neck can be seen.

The Dougherty wagon. "Attention is called to the unfitness of the present Dougherty spring wagon, especially in a mountainous country. In making

an inspection of the Yosemite and Sequoia national parks the hard springs and discomfort of this wagon were especially brought to my attention. Officers generally complain of it as being unfit for the transportation of either the sick or well officers or men. It is scarcely better than an escort wagon to ride in and is so constructed that in case of danger from upset, liable on mountain roads, it would be impossible to get out of the door.

"This conveyance is high, easily tipped over, and has not a single comfort that I know of, and should no more be continued in the service than the muzzle-loading rifle.

"Excellent mountain wagons, well fitted for the service, and at moderate prices, can be purchased on this coast."

Maj. E. L. Huggins, Inspector-general, Department of the Lakes, states:

Veterinary medicine. "The veterinarian at Fort Sheridan recommended that the supply table for veterinary medicines, dressings, and instruments be revised, so as to meet the requirements of more modern veterinary surgery and therapeutics."

Tableware. "The officer in charge of the general mess at Columbus Barracks submitted the following suggestion: 'Granite ware should be substituted for the crockery now issued, so as to avoid the breakage, which, as a rule, has been large. As the garrison is mostly made up of recruits awaiting assignment to regiments, it is a great difficulty to fix responsibility for the breakage of tableware.'"

Subsistence department. The quality of subsistence stores furnished at posts is generally reported satisfactory, with a few minor exceptions here and there, and the administration of its affairs appears to be in capable, zealous hands. I perhaps there is no other single item of army administration so rich in its power for good or ill effects upon the general morale of an army as that of its food supply. And the purchase, care, and issue of subsistence stores should evidently be surrounded by all the safeguards known to the modern business world, and the minutest details of every step in the transaction, beginning with the original purchase and continuing up to or after delivery to the troops, should and doubtless does receive the consideration it deserves. How incomparably liberal are the supplies (and the laws under which they are furnished even more so, if possible) is becoming more and more appreciated. When this department can control the stores from the producer to the soldier's mouth, there can be but little question of quality or adequacy as delivered. The best that it has done for the Army in the past and present is the best done in this line for any army; and this may be but a foretaste for the future. Only men in sufficient numbers for its expanded duties are required; the ability and zeal to handle the business is already assured.

While considering the question of army organization, it may be well to consider what a benefit the existence of this department of the staff has been to the American soldier under many trying difficulties, and how the generosity of the supplies under it compares with the armies of other nations. And also consider the questions presented by soldiers from the posts and campaign, i. e., whether it would not increase the comforts of the enlisted men and subserve some good purpose if such articles as antiseptic soap or talcum to relieve prickly heat, and a pocketknife, razor, shaving mug, shaving brush, hand or pocket mirror, and scissors and thimble were kept for sale by the Subsistence Department. These soldiers are not stationary and such requests are amusing enough to consent to occasionally, even though men have been known to exist without such articles in times of war. The minimum supply of articles for sale is now under the consideration of a board, so the limit from abundance in the permanent garrisons to the restrictions, growing as a campaign advances,

may be well worked out in some of its preliminary details to the hour when the soldier lives off the country and eats only what he can carry upon his person. Then he has reached the point of victory, and approaches the ideal of soldiering among the young enthusiasts and the old campaigners.

Lieut. Col. M. P. Maus, inspector-general, Department of California, reports:

Liquid coffee.

"I took advantage of an opportunity, while a battalion of the Fifteenth Infantry was en route to San Francisco, to travel with it in order to see what accommodations were provided for the men. The sleeping accommodations were very good. Coffee was furnished by a contractor, a baggage car having been furnished by the railroad as a coffee car. The coffee money, which is ample (being 21 cents per man), was turned over to the contractor, who made the coffee in this car and delivered it to the men. It is evident that it pays the contractor to do this.

"It can not be seen why this should not be done by the commissary officer with the troops. Boilers which will make from 50 to 100 gallons of coffee at a time can be purchased at a small cost, suitable for the purpose, and ought to be provided by the Commissary Department. There would undoubtedly result a large saving on coffee money, which could be expended in providing the men with other articles of food, such as sandwiches, and, if necessary cooking appliances were provided, a few hot dishes, such as hashes, stews, etc., could also be furnished.

"The trip across the continent is a long one and doubtless troops would arrive in better condition if better fed in this way.

"It was recommended generally by the officers of this regiment that bologna sausage be added as part of the travel ration.

"I would strongly recommend that the commissary officer of each battalion be required to furnish coffee for the men, as above indicated, and arrangements also be made for supplying a few hot dishes from time to time, which, it is believed, could be provided from the savings made on the coffee."

Medical department.

The condition of posts in respect to sanitation is generally reported fairly satisfactory. A number of them are reported in excellent sanitary condition. At a few of the newly garrisoned posts the general health of the command may be somewhat unfavorably affected by the untoward conditions naturally resulting from hurried occupation and the limited number of men available for the labor of cleaning up and setting things in order; all of which will doubtless be properly attended to when time and opportunity afford. Some of the post hospitals are reported as models in construction and completeness of equipment. New hospitals are needed at some posts, and at others they require extensive repairs.

The establishment is in the condition to be expected where the appropriations are liberal and the work not excessive, and the conduct of affairs under men of proverbial faithfulness and special intelligence. The army can confidently exploit its hospitals—from those in the field, like the Sternberg field hospital at Camp George H. Thomas, to the permanent one at the nearest post.

Ordnance department.

The affairs of this department are generally reported in good condition. The care and condition of ordnance and ordnance stores at posts are usually reported satisfactory, though this labor at some posts has been unusually heavy and perhaps interfered somewhat with other important military duties of the garrisons. Magazines are questioned occasionally, at least as temporarily located at a few posts; and the character and obsolescence of some of the supplies are under discussion. It is evident what a revolution there has been in arms, and it is one of the wonders of the century. The Brown Bess and paper cartridges and smoothbores of the Revolution—when General Knox, our first Secretary of War, made himself famous by bringing artillery over the snow from Ticonderoga to Washington's army at Boston—make a wonderful contrast to our elongated bullet, smokeless powder, metal cartridge, quick firing, high velocities, breech-loading musket, and our cannon's enormous power, though both the rifle and breech-loading principles were not untried then. The scientific attainments of the Ordnance Corps have led during all the development of its time and is still confidently relied upon as equal to all the contingencies of the future.

The following suggestions of First Lieut. Henry D. Todd, jr., Army service corps. Seventh Artillery, in regard to an army service corps, appear to be timely:

"The organization of an army service corps on the lines of the service detachment, quartermaster's department, West Point, is most strongly recommended. The present status (i. e., detail of men from the line on special or extra duty who have no interest in such work) is considered to be a makeshift, the result being very inefficient service and great loss to the United States through short life of service of supplies furnished, due to lack of knowledge of how to handle, care for, make repairs, and

prevent waste of the multitudinous articles furnished by the supply departments. A few well-trained men organized in a service corps to perform the duties in the quartermaster's and commissary departments, now performed by men detailed from the line on special duty, would, in my opinion, vastly increase the efficiency of the administration of these departments in a post, and a great saving result to the Government from better care, use, repair, and prevention of waste of property. The deficit in the present method is most marked when a change of garrison is taking place."

Lieut. Col. Philip Reade, inspector-general, Department of Dakota, reports as follows in regard to the creation of an indemnity fund:

"The creation and apportionment of an indemnity fund is recommended, out of which to pay for acts of trespass necessarily involved in the execution of field problems, extended-order drill exercises, etc., outside of military reservations.

"If claims for occupancy, rental, and damages are allowed, the question is asked: 'From what public moneys, what appropriation, is the claim payable?' Assuming that the amounts be paid as ground rental under the head of barracks and quarters, suggestion is made that future appropriations for the support of the Army include an item to be called 'Indemnity fund.' Out of this might be paid all similar claims and damages, including those arising from the practice marches, field maneuvers, etc.

"Compliance with the requirements of General Orders, No. 53, Headquarters of the Army, 29th December, 1896, involves devoting at least forty days in each calendar year to practical instruction of all commands in minor tactics, covering the functions of the three arms in the country surrounding military reservations. Reconnoitering; convoy duty; attack and defense of each arm, or two or three arms combined; night operations; advance, rear, and flank guard duties; actual solution of minor tactics in the field, etc., can not be prosecuted without going beyond the limits of most reservations owned, rented, or occupied by the United States. Private property is trespassed upon; crops are injured; cultivated grounds are encroached upon; fences, gates, etc., are damaged. Claims are also presented for sodding or seeding places where United States troops have dug latrines, sink holes, etc., or built camp fires.

"These facts suggest a renewal of the recommendation that proper estimate be made for a fund to be known as the 'Indemnity fund,' or some similar name.

"The United States can and should maintain a reputation for prompt settlement of claims for compensation for private property occupied, used, damaged, or destroyed by the Army. Prompt reimbursement should be the rule with the United States for damaged crops, broken fences, and like claims."

INSPECTIONS IN THE PHILIPPINE ISLANDS.

Of the 71,742 troops inspected and reinspected in the Philippines, 66,137 were consolidated monthly brigade inspections of the First Division, Eighth Army Corps, which were commenced in September, 1899, and continued monthly.

These brigade inspections were inaugurated by the late Maj. Gen. Henry W. Lawton, at that time in command of the division for which the inspections were ordered. General Lawton's former honorable and efficient service in the Inspector-General's Department, together with his herculean and eminently successful labors in other branches of the military service, had doubtless produced qualities of mind that placed him among the van of the brilliant military men of the day, both in the Antilles and Philippines. That the value and importance of frequent inspections of the troops should be so strikingly recognized by an officer of his experience and attainments can only be regarded as another proof of their wisdom and utility. The order issued by General Lawton is as follows:

GENERAL ORDERS, }
No. 32.

HDQRS. FIRST DIVISION, EIGHTH ARMY CORPS,
Manila, P. I., August 25, 1899.

Commanding generals of brigades in this division will, within ten days after receipt of this order, and hereafter between the 15th and 20th of each month, cause a full and complete inspection to be made of all the troops of their commands by the acting brigade inspectors-general.

This inspection will determine the efficiency of the command for field service, and report will be made in detail.

Particular attention will be given the following:

1. Strength of each organization:
 - (a) Present and absent from department.
 - (b) Present and absent from inspection.
2. Condition of arms and accouterments.

3. Amount of ammunition in hands of each company and regiment.
4. Condition and character of clothing, especially shoes.
5. Company kitchens and management of same.
6. Company quarters, tents, or barracks, and condition as to police and sufficiency.
7. Sinks and bathing facilities.
8. Company books and records—how kept.
9. General efficiency of officers and noncommissioned officers.
10. Health and appearance of each command.
11. Instruction in drill regulations and minor tactics—time given to same.
12. Number of men in each regiment of over six months' service.
13. Condition, amount, and kind of transportation in hands of each organization.

The attention of acting inspectors-general is directed to 874, Army Regulations, 1895, and to paragraphs 5, 7, and 8 of General Orders, No. 81, Adjutant-General's Office, series 1898.

Inspectors will not only report faults and deficiencies which may be observed, but will state cause of same so far as can be determined, and will recommend a method for correction.

Blanks calling for most of this report can be obtained from the inspector-general of the division.

The "Report of a field inspection" will be completed for each regiment and, with the "Company inspection blank" for each company, will be forwarded through the brigade commander to the adjutant-general of the division.

Similar reports will be made of all organizations detached from their regiments, but serving with the brigade.

These blanks and the provisions of Army Regulations and the General Orders quoted above will be made to apply as far as possible to the field conditions now existing.

By command of Major-General Lawton:

CLARENCE R. EDWARDS,
Assistant Adjutant-General.

The following table shows these brigade inspections in detail—organizations, date of inspection, by whom made, and aggregate strength:

Date.	Inspector.	Organization.	Aggregate strength.		
			Offi- cers.	Enlisted men.	Total.
September, 1899....	Maj. M. D. Cronin, 33d U. S. V. Infantry.	First Brigade:			
		General staff, field and staff, etc.	81	201	282
		13th U. S. Infantry.....	31	1,146	1,177
		19th U. S. Infantry.....			
		37th U. S. V. Infantry....	19	481	500
	Lieut. Col. C. J. Crane, 38th U. S. V. Infantry.	Second Brigade:			
		4th U. S. Infantry.....	39	1,223	1,262
		14th U. S. Infantry.....	25	776	801
		21st U. S. Infantry.....	39	1,275	1,314
	Lieut. Col. W. E. Wilder, 34th U. S. V. Infantry.	Third Brigade:			
		4th U. S. Cavalry.....	40	1,108	1,148
		24th U. S. Infantry.....	21	1,011	1,032
		25th U. S. Infantry.....	26	1,019	1,045
	Capt. S. E. Taylor, 4th U. S. Artillery.	Fourth Artillery:			
		Battalion.....	17	578	595
October, 1899.....	Maj. M. D. Cronin, 33d U. S. V. Infantry.	First Brigade:			
		General staff, field and staff, etc.	94	239	333
		13th U. S. Infantry.....	26	1,306	1,332
		27th U. S. V. Infantry....	15	492	507
		25th U. S. Infantry.....	21	1,056	1,077
	Lieut. Col. C. J. Crane, 38th U. S. V. Infantry.	37th U. S. V. Infantry....	25	732	757
		19th U. S. Infantry.....	11	579	590
		Second Brigade:			
		4th U. S. Infantry.....	39	1,434	1,473
		Battery F, 5th Artillery, and 14th U. S. Infantry.	25	1,060	1,085
		21st U. S. Infantry.....	39	1,327	1,366
	Maj. M. D. Cronin, 33d U. S. V. Infantry.	Third Brigade:			
		34th U. S. V. Infantry....	33	1,250	1,283
		11th U. S. V. Cavalry....	30	319	349
	Lieut. Col. A. S. Cummins, 27th U. S. V. Infantry.	First Brigade:			
		General staff, field and staff, etc.	78	256	334
		29th U. S. V. Infantry....	35	1,242	1,277
		27th U. S. V. Infantry....	33	1,099	1,132
		30th U. S. V. Infantry....	36	1,262	1,298
		37th U. S. V. Infantry....	13	612	625
November, 1899....	Lieut. Col. A. S. Cummins, 27th U. S. V. Infantry.				

Date.	Inspector.	Organization.	Aggregate strength.		
			Offi- cers.	Enlisted men.	Total.
November, 1899....	Lieut. Col. C. J. Crane, 38th U. S. V. Infantry.	Second Brigade: 4th U. S. Infantry..... 14th U. S. Infantry..... 11th U. S. V. Cavalry..... Battery F, 5th Artillery... Battery D, 6th Artillery..	32 22 12 2 3	1,384 1,081 328 32 70	1,416 1,068 340 34 73
December, 1899....	Lieut. Col. A. S. Cummins, 27th U. S. V. Infantry.	First Brigade: General staff, field and staff, etc. 27th U. S. V. Infantry... 29th U. S. V. Infantry... 30th U. S. V. Infantry... 37th U. S. V. Infantry... 39th U. S. V. Infantry... 45th U. S. V. Infantry...	109 17 30 36 15 20 5	379 596 1,039 1,269 576 815 191	488 618 1,069 1,305 591 835 196
	Lieut. Col. C. J. Crane, 38th U. S. V. Infantry.	Second Brigade: 4th U. S. Infantry..... 21st U. S. Infantry..... 28th U. S. V. Infantry... Battery F, 5th Artillery.. Battery D, 6th Artillery..	31 34 36 4 4	1,349 1,334 1,226 124 64	1,380 1,368 1,262 128 68
January, 1900.....	Lieut. Col. A. S. Cummins, 27th U. S. V. Infantry.	First Brigade: Field and staff, etc..... 21st U. S. Infantry..... 27th U. S. V. Infantry... 29th U. S. V. Infantry... 40th U. S. V. Infantry... 41st U. S. V. Infantry... 42d U. S. V. Infantry... 49th U. S. V. Infantry... Battery D, 6th Artillery..	93 33 36 21 34 12 18 36 3	344 1,246 1,196 698 1,241 426 624 1,246 83	437 1,279 1,230 719 1,275 438 642 1,282 86
February, 1900....	Maj. A. L. Dade, 48th U. S. V. Infantry.	First Brigade: Field and staff, etc..... 21st U. S. Infantry..... 27th U. S. V. Infantry... 29th U. S. V. Infantry... 42d U. S. V. Infantry... 48th U. S. V. Infantry... Batteries H and L, 3d Artillery. Battery D, 6th Artillery.. 49th U. S. V. Infantry...	90 31 39 21 18 36 7 3 36 37	225 1,099 1,189 695 620 1,272 213 85 1,238 1,301	315 1,130 1,228 716 638 1,306 220 88 1,274 1,388
March, 1900.....	Maj. W. D. Beach, Inspect- or-General, U. S. V. Maj. W. C. Brown, 42d U. S. V. Infantry.	First Brigade: 4th U. S. Cavalry..... 27th U. S. V. Infantry... 42d U. S. V. Infantry... 48th U. S. V. Infantry...	8 35 27 9	350 1,184 923 308	358 1,219 960 317
April, 1900.....	Maj. E. B. Cassatt, 27th U. S. V. Infantry, and Maj. E. M. Johnson, 29th U. S. V. Infantry.	First district: 4th U. S. Infantry..... 21st U. S. Infantry... 27th U. S. V. Infantry... 29th U. S. V. Infantry... 42d U. S. V. Infantry... 46th U. S. V. Infantry... 49th U. S. V. Infantry...	33 28 35 21 27 36 12	1,317 1,074 1,178 701 920 1,258 409	1,350 1,102 1,213 722 947 1,294 421
	Capt. F. B. McKenna, 46th U. S. V. Infantry.	Second district: 30th U. S. V. Infantry... 37th U. S. V. Infantry... 38th U. S. V. Infantry... 39th U. S. V. Infantry...	27 27 36 82	927 745 1,834 1,280	954 772 1,370 1,312
Aggregate.....			2,299	63,838	66,137

In making these consolidated brigade inspection reports the inspector states that only such matters were reported as were cause for comment, either favorable or adverse, and all others reported as normal were omitted. The reports generally indicate fairly excellent military bearing and appearance of troops and satisfactory state and progress of discipline. Many of the company organizations of the United States Volunteers are commanded by very young officers, acquiring and not possessing experience; thus throwing the burden of officer's work upon a comparatively few of experience and upon the battalion and the regimental commanders. Some of the organizations are reported to have a large proportion of enlisted men of apparent military experience, who displayed alertness and familiarity with their weapons and equipment. The reports generally indicate fairly satisfactory conditions in regard to health, the men looking in good health and ready for field service. Some regiments

are reported in better health than others, due to the hardships and exposure of active work, which may not be shared alike in all cases. Constant wetting is claimed to have worn out the men's shoes very fast, and in some cases a lack of suitable foot covering has been reported.

The instruction in some cases is not reported entirely satisfactory, owing generally to the conditions of service, which is performed sometimes under many and great disadvantages, resulting from frequent rain and seas of mud. The large percentage of recruits presented difficulties of considerable magnitude also in the matter of instruction, and the prescribed drills may not have been regularly and persistently held in all organizations, on account of other exacting duties; but doubtless everything that is possible is being done to remedy all existing defects of this nature. Indeed, instituting these brigade inspectors, which were asked for but not granted in the law authorizing recent volunteers, indicates how strenuous was the need and effort to train our troops and prepare them for the work soon entered upon and done so well, and culminating in the soldierly close of the career of General Lawton, honored among the soldiers of his nation.

The following extract from one of these inspection reports may be of interest:

"The fact that this regiment has but eleven vacancies in its ranks, and the men remain in good and rugged health after two months' stay in the islands, speaks a great deal in favor of the excellent management and administration of regimental and company officers. All requirements as to shoes, clothing, first-aid packets, hand litters, etc., have been complied with. Such good results can only be obtained by efficient officers and well-instructed noncommissioned officers. Six hundred and thirty-eight men had seen over six months' service prior to this enlistment. During the inspection Companies E and F were directed to man the trenches, each officer and enlisted man having a position assigned him in case of alarm. The companies were in ranks when the alarm was sounded. Company E required only one minute and Company F but fifty-five seconds to get into position to meet an attack."

The reports indicate a highly satisfactory condition in a number of regiments and an excellent tone. The shelter is not reported satisfactory in all cases. Some of the troops at date of inspection were found in barracks, some in nipa huts; others in tents, some of which were not floored; others in houses and shacks, and a few in churches and convents. The advisability of erecting quarters at all stations of troops likely to be permanent should receive consideration, if it has not already; as it would possibly entail the least expense, when the health of the soldier and the cost of tents and flooring are considered.

The transportation is generally reported good of its kind, though the allowance is occasionally reported inadequate. The practice of boiling the drinking water appears to be very generally observed by or at least carefully urged upon the troops. It is obtained from various sources, such as distilled water from Manila; well, river, and rain water; springs, and the San Mateo River. The condition of uniforms, arms, accouterments, and equipments is generally reported fairly satisfactory. Some of the uniforms are reported as showing much wear from hard service, but the necessary steps had been or were being taken to obtain a new supply. The quartermaster, commissary, ordnance, and medical supplies are usually reported good and sufficient.

The inspections in the Philippine Islands, both by officers of the regular establishment and those specially detailed for the purpose, have been very thorough; and the reports indicate that the inspectors have given their very best energies to the work, which in campaign involves far more for them than inspection alone, and has been prosecuted with the utmost vigor under any and all circumstances, rain or shine, entailing all the hardships and dangers of service during an active campaign, and involving exposure in inclement weather and travel over trails, bridle paths, and muddy roads. The first inspector-general on General Lawton's staff in the Philippines has been promoted under a commission in a volunteer regiment, but, of course, still holding his commission in his regular regiment.

INSPECTIONS IN CUBA AND PORTO RICO.

During the past year the changes in the military conditions in the Division of Cuba have been rapid and continuous. At the beginning of the fiscal year there were, approximately, 15,000 troops in the island; the division consisted of four military departments; the troops there numbered 10 full regiments and 1 fractional regiment, footing up 132 company organizations, divided among the three arms as follows, viz, 48 cavalry, 12 artillery, and 72 infantry; and the number of places on the island having military garrison was 27. At the close of the fiscal year there were, approximately, 9,000 troops in Cuba; the division had but two military departments; only two full regiments remained, both cavalry, and 8 fractional regiments

with 2 battalions each, numbering in all 91 company organizations, divided among the three arms as follows, viz, 40 cavalry, 10 artillery, 40 infantry, and 1 signal corps company. The number of places garrisoned at the close of the year was 23, being a reduction of 4. And further reductions are anticipated.

The following table shows the changes reported during the year in the number of troops in Cuba, arm of service, etc.:

Troops in Cuba.

Arm.	Number of organizations (troop, battery, company).			
	Fiscal year 1899-1900.		Decrease.	Increase.
	July.	June.		
Cavalry	48	40	8	.....
Artillery	12	10	2	.....
Infantry	72	40	32	.....
Signal Corps .....	.....	1	.....	1
Total.....	132	91	42	1

All garrisoned points in Cuba were inspected during the fiscal year. The general military conditions there may be sufficiently indicated by the following extracts from the annual reports of inspectors-general and acting inspectors-general.

Col. G. H. Burton, inspector-general, Division of Cuba, states:

"Respecting the general bearing, military appearance, discipline, and instruction, the troops visited by the division inspector were found, under the circumstances, to be in a very satisfactory state. Some were more efficient than others, and evinced a better set up and general military appearance, but none of them were unsatisfactory. A number of the cavalry horses at some of the posts were not in good flesh, and gave evidence of want of proper grooming and general good care. These defects were reported to the military governor, and necessary orders given for their correction.

"The barracks of the troops visited were generally very neat and clean, and in good sanitary condition.

"The food supplies were found to be ample and well served to the men, from whom there were no complaints. Of course messing here does not compare with that at the posts in the United States, for the facilities are poor, at best, in this country, and the vegetable supply is meager and unsatisfactory.

"The clothing of the men for a warm climate is satisfactory. So far as I could ascertain the officers and men like the chambray shirts; they are cool, neat in appearance, and very comfortable.

"The arms and equipments of all the men inspected were in excellent condition.

"The reports of the few inspections that have come to this office coincide generally with the observations noted above.

"All of the officers, so far as this office can judge, who have performed duty in the military departments composing the division have been efficient and zealous in the performance of their work."

Capt. F. S. Foltz, acting inspector-general, Department of Matanzas and Santa Clara, states:

"Fully three-fourths of my time has been occupied with purely civil duties and inspections, due to the work of reconstruction and sanitation and the reorganization of the country.

"This work, while arduous, is only indicated in the very few reports that I had time to write (having been unable to obtain a stenographer).

"The military force in the department consists of the whole of the Second Cavalry, 2 battalions of the Second Infantry, and 2 battalions of the Tenth Infantry.

"This force garrisons 6 seaports and 3 inland towns, and occupies 10 posts and 1 subpost. The subpost and 4 of the others are 1-company stations; 2 are stations for 2 companies; 2 for 4 companies; 1 for 5, and 1 for 6 companies.

"This wide distribution has involved great difficulty in finding the necessary number of officers with experience in money accountability and in the routine of our supply departments, but has been necessary on account of the geographical conditions and the nature of the system of communication.

"The effect of the conditions is shown by the fact that while but two points have to be occupied in the province of Matanzas, there are in the province of Santa Clara 7 towns to be garrisoned.

"Naturally this scattering has made the absence of officers severely felt. The 2 battalions of the Second Infantry have had to garrison 5 posts with their 8 com-

panies and find post commanders (who have also the civil duties of supervising districts), quartermasters, commissaries, and disbursing officers of island funds from among the few officers available.

"All the posts in the department have been inspected once regularly, and most of them several times besides incidentally, when I have been in their vicinity on civil business.

"The inspections were at first in their nature 'field inspections,' but latterly, as conditions became more regular, the inspections have been as far as practicable such as would be made at regular garrisons in the United States.

"In general these inspections have shown that the troops are in an efficient condition as to instruction, are comfortably quartered, and in good health, though there is always a proportion of malarial fever. * * *

"In spite of all that can be done the soldier on foreign service must necessarily suffer a disadvantage compared with the men at home; it would therefore seem that he should be afforded the few advantages which may be available at his particular station, although the War Department may be unwilling that the particular convenience be extended as a matter of right to the whole Army. For instance, at many of these Cuban stations electric lighting is available, and is particularly desirable on account of the lack of heat and because with everything wide open as is necessary in a tropical climate lamps can not be made to burn properly.

"So great is the advantage of the electric light that I have seen them installed in some of the squadrons at the expense of the men themselves.

"The following notes have in many cases been included in previous reports, but are here briefly resumed:

The sling for the rifle. "A great many of the slings have been worn out, not in fair use in slinging, but in handling the pieces. A saving would be effected if this strap were considered as part of the field equipment and only put on the rifle when the canteen and haversack were carried. Americans do not seem to fancy carrying their arms slung over the shoulder as is the continental custom, and the sling is therefore useless at the ordinary drills.

The bayonet scabbard. "The spring is weak and allows the bayonet to fall out. The scabbard swings too freely on the pivot of the attachment; it rattles against the tin cup hanging to the strap of the haversack and gets in the way. It would be steadier and at the same time free enough if secured by a leather frog of proper kind.

"The revolver is unsatisfactory and was the subject of a special report.

"The development of the use of enamel in the finishing of bicycles should by this time have produced a satisfactory method of protecting saber scabbards from rusting, and also making them less conspicuous.

White helmet. "Is not provided with proper lacing of the sweat band and therefore rests like a hat on a sharp edge around the head instead of being properly supported. When the chin strap is worn its effect without the lacing is to pull the helmet over the head.

"The helmet is not well made; it will not stand up under rain and hard service. I have worn out two of the quartermaster's helmets in a few months' use here, while an English trooper's helmet, made by Christy, that I bought in 1886 and have used a great deal since then, is presentable and serviceable. The color should be khaki; this color can be given by the use of 'khaki Blanco,' with which I have experimented and upon which I made a special report.

The device of the campaign hat. "Letter and number is unsatisfactory, the characters fall off and can not be conveniently removed for polishing. The old cross rifles, etc., as used on the forage cap, were perfectly satisfactory, and their use on the helmet and on the campaign hat should be authorized. Before the issue of the letter and numbers prescribed, the cap ornaments were used on the campaign hats, being placed on the left side instead of in front, as being less likely to be broken there and having more room.

The khaki coat. "At the request of the Quartermaster-General, I am at present altering a sample uniform which he kindly sent me to illustrate suggestions I made in a special report on khaki.

"The changes suggested will be:

"Larger breast pockets, set in front and high up instead of under the armpits.

"Shoulder straps of a special pattern that will admit of their being made stiff and their being removed by unlinking one button when the clothing is washed.

"More room in the chest, so that the soldier can hold himself up.

"Darts in front of the waist to take up the necessary cloth under the belt at that point.

"N. B.—This coat is never worn over the belt. Lower pockets well to the front and low down, so that the contents will be under the belt and in front of the hollows

of the groin. These pockets to be pleated like those on the chests, but not quite so large. As made now they are on the side, and so tightly drawn over the hips that nothing can be carried in them.

Riding breeches for the cavalryman. "Tight at the knee but very loose above, fitting, however, snugly about the hips. Buttoned at the knee with four buttons and below the calf with two more. Pockets, including the watch pocket, well down in front where they can be reached when mounted without pulling up the belt, and where the contents will hang inside the upper side.

As a field substitute for chevrons. "I would suggest the adoption of a whistle with a single cord, color of the arm of the service, for corporals, and a double cord for sergeants. This would do away with the necessity for sewing on the insignia and would, it seems to me, be very satisfactory.

The gold medal camp cot. "There have been a great many of these cots submitted for condemnation. Their durability would be improved by using a stronger canvas, perhaps of linen, to save weight and bulk, and by changing the angles of the cross legs so as to make the cot 6 inches higher. This would reduce the width of the bed, but still leave it wide enough for the purpose. The advantage obtained is that the men on sitting down on the cots reach the support before they get below the point where the knees support the weight. It is believed that most of the cots are broken by the drop of the body in the last 6 inches while sitting down on the cot. If proper rivets and canvas were liberally supplied, cots could be easily repaired by the company carpenters. The rivets are made useless for repair by the cutting off of the ends in taking out the broken sticks.

"The system of raising the height of the cot is one that was tried successfully several years ago by Captain Ward, First Cavalry. I do not know whether he made any report upon the matter.

Tentage. "It is very evident that the wall tent is only adapted to permanent camps and to railroad transportation. For field service the conical wall tent with its single pole is the only practicable device. For service where fires in the tents are not an absolute necessity there should be a light jointed pole to replace the cumbersome pole and tripod we have used at home. The canvas should be lighter and perhaps the tent could with advantage be made a little smaller on account of the saving of the stove room. A tent of this kind was in use by the Canadian mounted police a few years ago and seems to be much handier than our own.

Condemnation of property. "Theoretically nothing should be condemned by an inspector that can be advantageously repaired at the post. Practically the repair of articles at a post is hampered by many restrictions as to methods of obtaining money, estimating for material, etc. The quartermaster and his office force have not had the time to comply with the requirements, except in the case of large important pieces of work, and the result is that many things are submitted for condemnation that would most certainly have been repaired by the superintendent of a private enterprise, unhampered by restrictions as to the use of money he might have on hand.

Double sets of quarters. "In the tropics where comfort depends upon exposure to prevailing winds, our system of building officers' quarters double results in making one side uncomfortable for lack of air.

"The small saving effected by building the quarters double could be made by economizing on the finish. The rough cottage, if single, would be considered more desirable than the wrong side of a well-finished double house. The cold or sunless side of a house in the North also has its disadvantages, but they can be somewhat counteracted by a lavish use of fuel, while there is no way of meeting lack of breeze.

Pay of saddlers and blacksmiths. "The small pay of cavalry saddlers and blacksmiths is poor economy; the proper kind of men can not be secured and kept at work. The saving on horses and saddlery would be vastly greater than the cost of giving these men the same pay as a company cook.

Saddle rooms. "It has not been the custom in our service to provide for the cavalry saddle rooms of sufficient size to enable the horse equipments to be arranged in order for convenient inspection, and to be kept in clean condition. We have been satisfied if 60 per cent of the troopers could gather together enough clean equipments to make a satisfactory showing once a week at the Saturday inspection. In our dry western climate, where the cavalry was doing rough service, the system did not involve serious injury to the equipments that were for weeks left bundled up with damp saddle blankets on the crowded pegs in the saddle rooms.

"In the Tropics, however, rust and mold soon work serious deterioration, and the principle that equipments should at all times be clean should receive official indorse-

ment. This will mean for the cavalry that the leather and steel should receive attention immediately after use, as is the practice in well-managed private stables, and that the equipment be arranged so that its condition is instantly visible at all times.

Officers' horses. "The present regulations as to the horses of mounted officers are absolutely impracticable. Either the officers should be furnished with a public mount, or he should be allowed the money necessary to mount himself properly; he should be afforded every facility for buying a mount from the Government in the localities where horses are not readily obtainable outside, and once having bought his horses they should be transported for him wherever he may be ordered. He should be relieved from the necessity under which he now labors of having to sell his mounts at a loss every time he is ordered to move without troops.

"The extra pay of a mounted officer does not cover the cost of the average of \$10 per month that he pays to the man that takes care of his horses.

"A civilian visiting an army post once remarked, 'that it seemed strange to see the officers riding unsound or vicious condemned horses while the privates were furnished with sound animals.'

"An officer's allowance should be based on a calculation of the expense to which he will be put from year to year to keep himself mounted in the manner expected of him.

"Our present system is based on the false assumption that a cavalry officer is a man of means, independent of his pay. If it were rigidly carried out it would result in driving all others out of that branch, as has been the case in the British army.

The exchange. "The exchange is an excellent institution, but its profits should not be diverted to making up the deficiencies in the food of the soldier, which should be the care of the commissary department. The soldier's food should not depend upon the accidents of surroundings that affect the profits of the exchange or may prevent its establishment. It is advisable that a small money allowance be added to the ration, say three cents, and the messes be thus independent of any money-making devices.

Chief of squad. "My inspections reveal the fact that company commanders generally fail to avail themselves of the services of chiefs of squad to assist them in the details of the control of the men.

"The spirit of the regulations, paragraphs 270 and 271, and of the drill regulations, paragraph 559 (cavalry) not only allow but require the active intervention of the chiefs of squad and squad leaders.

"The men in most cases when questioned can not tell whose squad they belong to, and the noncommissioned officers can generally not conceal their surprise when questioned about the men of their squads or called to account for having allowed some neglect on their part. The company commanders often seem to think that a deficiency on the part of a few men in their company is excusable as they have to look after a hundred individuals. They communicate directly with the hundred individuals instead of with the eight chiefs of squads; and these chiefs have nothing more to do with the particular requirement than to comply with it individually like the privates.

Schools. "As the tropical climate prevents in a great measure the drills and field exercises practicable in home stations it is thought that more attention might be given to schools and to instruction that can be given indoors or in the shade.

"The primary object of these schools and indoor instruction should be the perfecting of the men and noncommissioned officers as soldiers, not the remedying of defects of early education. It could include the care of arms, clothing, equipments, and horses, the pitching of tents and making camps, measuring and judging distances, trajectory, intrenchments, field engineering, scouting, camp hygiene, first aid, signaling, etc.

"A soldier who has thoroughly learned his trade might be employed to instruct others, or, if not needed for this purpose, might be afforded opportunities of improvement in matters outside of his profession; preference being given to such matters as may add to his usefulness as a soldier. The duration of this instruction should be fixed with reference to the amount of other work required of the men attending, in order that the number of hours of leisure per day should be what is considered proper according to season and to circumstances.

Need for extra officers. "Experience here shows the necessity for officers in excess of the prescribed regimental quota when regiments are on foreign service, in order to allow for the number detached on duty in the United States, and for those required for detached duty at the foreign stations. This need would not be so severely felt if regiments were kept intact so as to have the

regimental staff meet the necessities of the whole regiment, as contemplated by the scheme of our organization; but when eight companies of a regiment are scattered at five posts (as has been the case with the Second Infantry, in this department) the lack of officers is most severely felt.

Maj. G. K. McGunnegle, acting inspector-general, Department of Santiago and Puerto Principe, states:

Officers. "The officers I have found to be capable and efficient. A number recently appointed from civil life need considerable instruction and training, but all of this class hold out promise of future worth under proper guidance.

Instruction. "Up to the time of my inspections the great scarcity of officers in the majority of the commands had militated against the troops being perfected in drill and other instruction. In a number of cases officers alone with their organizations were disbursing officers of insular funds, and in charge of civil improvements, and, with the important and exacting functions of these officers devolving upon them, their military duties must of necessity be more or less neglected and perforce suffer; consequently the instruction in many cases was not as full and complete as it might have been, and the organizations in some instances fell short of the standard. Yet on the whole the troops do not evince in their drill and instruction the lack of proficiency that might be expected under the conditions; and in many instances the proficiency displayed was very good. Another fact which would materially contribute its share toward a lack of soldierly excellence was the large percentage of recruits and comparative recruits of which the various organizations were composed.

"Instruction in minor tactics and military problems has not been given, nor have officers' lyceums and schools for enlisted men been held throughout the department. These omissions are mainly due to lack of facilities, separation from libraries, and scarcity of officers. In my opinion it would be well for orders to be issued defining the seasons in Cuba during which these exercises and schools should be included in the curriculum of instruction.

Enlisted men. "The class of men received since the war is not, as a rule, equal to that recruited prior to this event; still they may be considered fair, and the last consignment of recruits shows a marked improvement.

Horses. "The mounts of the cavalry are good, but those of the infantry were, as a rule, a poor lot of horses when received. They are now in a vastly improved condition and may be said to be now satisfactory. Blindness among the horses prevails to a great extent. Its origin and cause no one seems to be able to define. Several plausible theories have been advanced, but to my mind no one is to be accepted as the true one. It is an accepted fact that the number of horses affected by blindness decreases when the animals are placed under shelter. This might be considered as proving that blindness is caused and aggravated by constant exposure to the sun's rays, yet I do not believe that it is entirely due to this agency. Mules seem to be practically exempt from this disease.

Supplies. "The troops are well supplied with clothing and rations and all necessities for their comfort and welfare.

"There is a remarkably rapid deterioration of subsistence stores noticeable everywhere in the department, which no doubt is attributable to dampness and other climatic influences. Bacon quickly molds and starch foods are quickly attacked by weevils, while most other articles of food supply are sooner or later attacked by a parasite or fungus of some kind or other. The first consignment of plug tobacco deteriorated and became unfit for use very quickly through mold, but since the system of wrapping the tobacco in paraffin paper was adopted the deterioration is no longer observable."

Maj. G. S. Grimes, acting inspector-general, Department of Havana, states:

General remarks. "The general health of the troops during the year has been remarkably good, showing that our men, if reasonably well sheltered and their sanitary surroundings carefully looked after, have little to fear in this regard from service in Cuba.

"The troops are fairly well housed in temporary frame buildings, and all the posts are supplied with abundant and excellent water, being connected with the Havana water system.

"Bathing facilities, usually the shower bath, are fairly adequate.

"To these essentials and the enforcement of wise regulations prescribed in Department General Orders, requiring the men to sleep in barracks at night and prohibiting drills, etc., in the open during the warmer hours of the day, and the excellent police and sanitary measures prevailing at all the posts, are to be ascribed the general satisfactory condition as regards the health of the troops in the department.

The ration. "The ration as now constituted seems to meet all reasonable requirements as regards sufficiency and variety of this locality. The addition during the year of two ounces of dried fruit to the ration and the removal of the restriction in regard to the issue of fish, so as to authorize the issue of the fish ration in lieu of the ordinary beef ration when desired, have been beneficial.

Clothing. "The clothing supplied has been generally satisfactory. The improvement in the quality of the khaki, both as regards texture and color, is especially noticeable.

"In my opinion khaki is the most suitable and satisfactory material for uniform for service in Cuba.

"The present helmet, for foot troops at least, gives, I think, general satisfaction. The color, however, should be changed from white to khaki for wear with the service uniform.

"To insure a uniform and good appearance I would suggest that the cap be provided, when issued, with an eyelet properly placed for attaching the cap ornament."

Lieut. Col. R. B. Harrison, inspector-general, Department of Porto Rico, states:

Discipline. "I can not close this report without reference to the uniform good order that has prevailed throughout the department during the past year. Every American citizen can point with pride to this record, which had not only given the American soldier the highest reputation among those who know the American soldier best, but has caused astonishment and surprise among the native Porto Ricans, who have been used to the Spanish soldier all their lives. While the officers can take some credit for this result, the enlisted man himself is entitled to the greatest credit."

Lieut. Col. R. B. Harrison, inspector-general, U. S. Volunteers, makes the following report on post exchanges in the Department of Porto Rico:

"The post exchanges of this department have been the means of elevating the enlisted men by keeping them away from low and cheap resorts and the worst elements of Porto Rican society. In the operation it has been the constant aim of the officers having them in charge to provide clean and cool places, so needed by the enlisted men in the Tropics, where the light, cooling, and nonalcoholic drinks, with light lunch, could be economically obtained with the minimum of physical exertion. I have noted that the exchange as operated in the department has reduced instead of increasing drunkenness, and by the profit of operation, which is divided among the enlisted men, has greatly increased and improved the messing of the soldiers—thereby his happiness and health—by providing him necessities and luxuries not otherwise obtainable. I have noted from inspections that the companies, troops, and batteries of the department have averaged over \$100 per month in extra food purchases, and these purchases have chiefly been made possible by the post exchange.

"No soldiers the world over have been better fed than these stationed in Porto Rico, and thus the post exchange additionally contributes to the comfort and health of the enlisted men. With United States laws, Spanish laws, and military orders governing the island it is not surprising that some of the officers lost sight of the decision of the Court of Claims that the post exchange was an instrumentality of the United States and could not be taxed under local taxation. The United States Court of Claims, in *Dugan v. The United States*, held:

"The Government, through its officers, by authority of the regulations, not only establishes and maintains such exchanges, but receives, handles, and disburses the funds in connection therewith, and whatever profit accrues is paid over to and held by the officer in command of such organizations as a company fund.

"It has never been the policy of the Government to tax its own enterprises or its own manner or method of doing business; and inasmuch as post exchanges are established and maintained by it for the mental and physical betterment of its troops in garrisons and posts with resulting, if not immediate, benefit to itself, we think such exchanges are exempt from the payment of special tax for the sale of such articles as the regulations permit."

"The department commander, by Circular 46, dated December 26, 1899, recognized the decision of the United States Court of Claims by giving publication to an opinion of the Judge-Advocate-General of the Army."

APPENDIX B.

SUMMARY OF WORK PERFORMED BY OFFICERS OF THE INSPECTOR-GENERAL'S DEPARTMENT DURING THE PAST YEAR.

Officers.	Disbursements.		Posta.	Staff posts, ungarri- soned posts, soldiers' homes, branches, depots, hos- pitals, arsenals, etc.	National cemeteries.	Colleges.	Recruiting rendezvous and stations.	Special investigations and reports.	Inspections of property.	Transports.	Volunteer regiments.	Troop, battery, or com- pany organizations.	Total inspections.	Ascertained cost price of property inspected.	Number of students in- spected.	Number of persons in- spected, exclusive of students.
	Number of inspec- tions.	Amount involved.														
ACTING INSPECTORS-GENERAL.																
Brig. Gen. J. C. Breckinridge	1	\$277,724.94		2								1	4			1,693
Col. R. P. Hughes																
Col. G. H. Burton	19	21,684,874.34						2	4				27	\$1,104.23		
Col. P. D. Vroom	154	27,165,540.06	31	19			15	2	252	3	3		479	973,603.09		8,966
Lieut. Col. J. P. Sanger																
Lieut. Col. E. A. Gurlington	19	15,778,044.77		2				2	33	6			62	11,807.74		
Lieut. Col. C. H. Heyl	68	54,518,630.83		3	7				66				144	97,607.39		
Maj. Thos. T. Knox	16	12,547,409.92		9				2	10				37	4,220.60		
Maj. S. C. Mills	39	7,825,058.62		7					52	14	1	2	115	19,685.97		2,905
ACTING INSPECTORS-GENERAL.																
Lieut. Col. T. J. Wint	17	1,276,282.18	7						38				62	18,499.30		621
Lieut. Col. W. H. Boyle	64	4,508,988.16	9	3	1	19	3	2	141				242	95,860.63	1,315	1,623
Maj. F. D. Baldwin	67	8,370,777.18	12	5	11		6	2	147				256	106,990.98		9,698
Maj. W. H. H. Crowell	15	207,583.77	7						50			6	72	21,495.60		857
Maj. J. M. K. Davis	133	28,920,614.36	14	6	5	18	7	4	125	8	1		821	948,640.64	1,029	2,869
Maj. J. H. Dorst	1	149,444.74	4						1				6			1,040
Maj. G. S. Grimes	14	915,039.11	7	2					42				65	6,396.68		
Maj. E. D. Thomas			4						7				11	191.63		904
Maj. E. L. Huggins	123	25,739,956.12	5	5	6	11	19	1	90			1	261	47,136.80	1,523	3,732
Maj. F. H. Edmunds	36	1,952,220.49	4					5	196				241	129,016.59		2,886
Capt. Frederick Perkins													1	438.99		
Capt. E. A. Helmick	24	546,581.94							42				68	17,217.30		
Capt. G. K. McGunagle	67	4,671,719.28	15					2	17				99	11,232.09		2,708
Capt. F. W. Sibley	11	1,967,562.50	4	1	1	2			17				36	9,101.98	124	
Capt. Fred. S. Foltz	60	4,086,196.89	11					9	166	1			247	87,254.75		2,768
Lieut. Selgwick Rice									16				16	1,892.12		
Lieut. D. E. Aultman									9				9	1,672.61		

INSPECTORS-GENERAL VOLUNTEERS.

Lieut. Col. M. P. Maus	101	64,888,811.08	18	5	1	10	2	1	128	14	4	284	176,443.19	1,194	16,370
Lieut. Col. I. D. Miloy	1	61,689.72	2						30			51	89,836.25		
Lieut. Col. Philip Reade	24	8,202,480.17	5	1	7	2	1	1	30			71	94,847.27	544	683
Lieut. Col. R. E. Harrison	5	60,715.96							44	2		57	18,833.37		720
Maj. S. Mallory	1	10,070.50							7			8	1,640.13		
Maj. C. Starr	1	24,851.71						2	108		1	112	40,066.61		
Maj. R. H. Rolfe	41	39,907,425.96						2	26			69	38,180.98		
Maj. C. H. Murray															
Maj. P. V. Sharpe	81	22,084,839.54						518	11			11	11,788.45		
Maj. P. V. West	81	82,600.18						18	85	9		646	40,690.04		1,765
Maj. W. D. Beach	8	8,683.46							45		7	121	9,897.00		2,612
Maj. R. A. Brown	7	821,985.41			1	24	1		1,415	14	9	49	7,623.20		965
By special inspectors, etc.												1,471	117,652.49	1,706	69,425
Total	1,194	868,888,104.09	159	70	83	91	55	575	3,521	α 73	25	15	8,141,950.10	7,811	185,956

α This number includes more than one inspection of the same transport.

APPENDIX C.

CHANGES, APPOINTMENTS, STATIONS, ETC., OF THE OFFICERS OF THE INSPECTOR-GENERAL'S DEPARTMENT FROM DATE OF LAST ANNUAL REPORT TO JUNE 30, 1900.

1. PERMANENT OFFICERS.

Brig. Gen. Joseph C. Breckinridge, inspector-general, continued in charge of the Inspector-General's Office, War Department. Absent on tour of inspection from October 7 to November 28, 1899, per letter of Secretary of War of June 16, 1899; made an inspection of the United States Military Academy from May 14 to 19, 1900, under instructions of Secretary of War contained in letter of the Adjutant-General of May 8, 1900.

Col. Robert P. Hughes, inspector-general, on detached service during the year as brigadier-general of volunteers, in command of the military district of the Visayas until April 7, 1900, and of the Department of the Visayas since that time.

Col. George H. Burton, inspector-general, inspector-general Division of Cuba since September 27, 1899. Made a special investigation and inspection of the money accountability of the postal service in Cuba, and in this connection returned to the United States, and was ordered to report to the Attorney-General and to remain in New York City under the orders of the Department of Justice as a witness in the extradition trial of C. F. W. Neely, the absconding chief of the bureau of finance, department of posts, Havana.

Col. Peter D. Vroom, inspector-general. Promoted to colonel and inspector-general, United States Army, December 19, 1899. Continued on duty as inspector-general, Department of the East, during the year.

Lieut. Col. J. P. Sanger, inspector-general, director of the census of Cuba and Porto Rico during the year, per letters of the Secretary of War of August 19 and September 8, 1899, and performed such other duties as were required of him by the Secretary of War. Member of the board of officers convened for the purpose of considering the regulations with a view to the establishment of a war college for the Army, per Special Orders, No. 145, Adjutant-General's Office, June 21, 1900.

Lieut. Col. E. A. Garlington, inspector-general. On duty as inspector-general, Department of the Pacific and Eighth Army Corps in the Philippines, from November 23, 1899, and as inspector-general Division of the Philippines upon the establishment of that division. Absent on leave of absence on surgeon's certificate of disability since June 4, per Special Orders, No. 16, Division of the Philippines, April 28, 1900, extended by Special Orders, No. 141, Adjutant-General's Office, June 16, 1900.

Lieut. Col. Charles H. Heyl, inspector-general. Appointed lieutenant-colonel and inspector-general of volunteers September 30, 1899, and promoted to lieutenant-colonel, inspector-general, United States Army, December 19, 1899. Continued on duty as inspector-general Department of Porto Rico until December 31, 1899, and assigned as assistant to the Inspector-General of the Army, per Special Orders, No. 4, Adjutant-General's Office, January 5, 1900. Made a special investigation in Philadelphia from February 28 to March 3, and April 10 to 18, 1900, and on tour of inspection from June 6 to 28, 1900.

Maj. Thos. T. Knox, inspector-general. Continued on duty in the office of the Inspector-General of the Army during the year. Member of board of officers appointed for the purpose of conducting the examination of officers recommended for appointment to the Adjutant-General's and Inspector-General's departments, per Special Orders, No. 11, Adjutant-General's Office, January 13, 1900. Member of board of officers for examination of persons designated for appointment as paymasters, per Special Orders, No. 40, Adjutant-General's Office, February 16, 1900. Made an inspection of the National Home for Disabled Volunteer Soldiers and its branches from September 5 to October 20, and from December 2 to 9, 1899; a special investigation at Schuylkill Arsenal, December 12 to 19, 1899, and assisted the Inspector-General of the Army in making an inspection of the United States Military Academy, May 15 to 19, 1900, per instructions contained in letter of Adjutant-General of May 8, 1900.

Maj. Stephen C. Mills, inspector-general. Relieved from duty in the office of the Inspector-General of the Army November 15, 1899, and directed to proceed to Manila, P. I., and report to commanding general Department of Pacific and Eighth Army Corps for duty, per Special Orders, No. 248, Adjutant-General's Office, October 24, 1899. Reported for temporary duty to the inspector-general Department of Pacific and Eighth Army Corps, per Special Orders, No. 4, Department of Pacific, January 4, 1900. Assigned as assistant inspector-general, per General Orders, No. 1, Division of the Philippines, April 7, 1900. At present acting inspector-general of the division during absence of Colonel Garlington.

2. ACTING INSPECTORS-GENERAL.

Maj. Frank D. Baldwin, Fifth Infantry. Assigned as acting inspector-general Department of Missouri and the Department of Dakota, July 10, 1899, per Special Orders, No. 143, Adjutant-General's Office, June 20, 1899, and relieved from this duty January 5, 1900, per Special Orders, No. 302, Adjutant-General's Office, December 29, 1899.

Maj. W. H. H. Crowell, Sixth Infantry. Assigned to temporary duty as acting inspector-general Department of Texas, per Special Orders, No. 210, Adjutant-General's Office, September 8, 1899, and relieved per Special Orders, No. 296, Adjutant-General's Office, December 21, 1899.

Maj. E. L. Huggins, Sixth Cavalry. Continued on duty as acting inspector-general Department of the Lakes, and in addition to his regular duties made special investigations at Warsaw, Ill., and Keokuk, Iowa; of certain recruiting rendezvous in Kentucky and Indiana, and at Fort Sheridan, Ill. Member of board of officers for examination of captains of the line for appointment in the Adjutant-General's and Inspector-General's departments, per Special Orders, No. 24, Department of the Lakes, February 24, 1900. Member of promotion board at Fort Sheridan, March 14 to 28, 1900, per Special Orders, No. 248, Adjutant-General's Office, 1899.

Maj. J. M. K. Davis, First Artillery. Relieved from duty as acting inspector-general Department of the Gulf, per Special Orders, No. 232, Adjutant-General's Office, October 5, 1899. Assigned to duty as assistant to the inspector-general Department of the East, per Special Orders, No. 252, Adjutant-General's Office, October 28, 1899. Member of board of officers for examination of captains of the line for transfer to the Adjutant-General's and Inspector-General's departments, per Special Orders, No. 41, Department of the East, February 20, 1900. Accompanied the Inspector-General of the Army to West Point, N. Y., and assisted in the inspection of the United States Military Academy May 15 to 19, 1900, per instructions of the Secretary of War of May 8, 1900.

Maj. Frank H. Edmunds, First Infantry. Continued on duty as acting inspector-general Department of Province of Havana and Pinar del Rio. Investigated the cause of the removal of Dr. Ernesto Collazo, mayor and member of council of Batabano, Cuba, January 22, 1900. Member of board of officers to examine and report upon claims for alleged use or occupation of or injury done private property by United States troops, per Special Orders, No. 43, Department of Havana and Pinar del Rio, March 9, 1900. Died of yellow fever June 18, 1900.

Capt. Frederick S. Foltz, Second Cavalry. Has continued on duty as acting inspector-general Department of Matanzas and Santa Clara, Cuba, to which he was assigned by Special Orders, No. 210, Adjutant-General's Office, September 8, 1899. Made a special investigation into the personal records of certain civilian officers at Lajas, Cuba. Inspected the money accounts of all disbursing officers of insular revenues in Department of Matanzas, per letter of chief of staff of Division of Cuba of December 11, 1899.

Maj. George S. Grimes, Second Artillery. Continued on duty as acting inspector-general Department of Havana, to which he was assigned by Special Orders, No. 210, Adjutant-General's Office, September 8, 1899. Made a special investigation as to the public and private interests that would be benefited by renting Cojimar Tower to the Cuban Electric Company. Ordered to assume charge of the office of judge-advocate of the department during his absence, per Special Orders, No. 33, Department of Havana, February 20, 1900. Relieved from duty as acting inspector-general Department of Havana May 1, 1900, per Special Orders, No. 83, Adjutant-General's Office, April 9, 1900.

Capt. Wm. A. Mann, Seventeenth Infantry. Announced as inspector-general Department of the Visayas per General Orders, No. 1, Division of the Philippines, April 7, 1900, and General Orders, No. 1, Department of the Visayas, April 19, 1900. Assumed the duties April 19, 1900.

Capt. G. K. McGunnele, Fifteenth Infantry. Announced as acting inspector-general of the Department of Santiago and Puerto Principe per Special Orders, No. 198, Department of Santiago and Puerto Principe, September 25, 1899.

Capt. Frederick Perkins, Eighth Infantry. Assigned as acting inspector-general Department of Havana and Pinar del Rio per General Orders, No. 9, Department of Havana and Pinar del Rio, June 14, 1900. Assumed the duties June 16, 1900.

Capt. F. W. Sibley, Second Cavalry. Assigned as acting inspector-general Department of Texas per Special Orders, No. 51, Adjutant-General's Office, March 2, 1900. Reported for duty as such March 12, 1900.

Capt. H. E. Tutherly, First Cavalry. Assigned as acting inspector-general Department of Alaska per Special Orders, No. 82, Adjutant-General's Office, April 7, 1900. Reported for duty as such at the headquarters of the department then at Seattle, Wash., April 29, 1900. Ordered to proceed via Skagway and White Pass and Yukon River route and inspect certain commands and then rejoin the headquarters of the department at Fort St. Michael, Alaska, per Special Orders, No. 20, Department of Alaska, May 24, 1900.

Maj. E. D. Thomas, Fifth Cavalry. Assigned temporarily as acting inspector-general Department of Porto Rico per General Orders, No. 116, Department of Porto Rico, June 4, 1900. Made a special investigation of the complaints against the post surgeon and commanding officer at Manati, P. R., and inspected five posts in the department per Special Orders, Nos. 119 and 121, Department of Porto Rico, June 4 and 5, 1900.

Capt. E. A. Helmick, Tenth Infantry. Announced as acting inspector-general Department of Matanzas and Santa Clara per Special Orders, No. 30, of that department August 19, 1899, and relieved from such duty per Special Orders, No. 33, Department of Matanzas and Santa Clara, October 8, 1899.

Maj. Leonard A. Lovering, Thirtieth Infantry, U. S. Volunteers. Detailed as acting inspector-general per Special Orders, No. 61, Division of Philippines, June 13, 1900, and reported for duty to the inspector-general of that division June 27, 1900.

Capt. B. H. Randolph, Third Artillery. Announced as inspector-general Department of Mindanao and Jolo per General Orders, No. 5, District of Mindanao, April 16, 1900.

Lieut. Col. W. H. Boyle, Nineteenth Infantry. Assigned as acting inspector-general Department of Colorado per Special Orders, No. 302, Adjutant-General's Office, December 29, 1899, and assumed the duties January 6, 1900. Member of board of officers to report upon the reoccupation of Whipple Barracks, Ariz., per Special Orders, No. 11, Department of Colorado, January 30, 1900. Made an investigation of the charges against the conduct of post exchanges in Territory of Arizona.

Assigned as acting inspector-general, Department of the Missouri, per Special Orders, No. 92, Adjutant-General's Office, April 19, 1900.

Maj. C. G. Starr, inspector-general, U. S. Volunteers. Appointed lieutenant-colonel Eleventh U. S. Volunteer Cavalry, September 5, 1899, and continued the duties of inspector-general, First Division, First Army Corps, per Special Orders, No. 117, headquarters that division September 7, 1899; was relieved by Special Orders, No. 358, paragraph 5, Department of the Pacific and Eighth Army Corps, December 30, 1899.

Lieut. Col. T. J. Wint, Sixth Cavalry, acting inspector-general Department of Dakota, per Special Orders, No. 13, Adjutant-General's Office, January 17, 1899; relieved, per Special Orders, No. 210, Adjutant-General's Office, September 8, 1899.

Maj. J. H. Dorst, Second Cavalry, assigned as acting inspector-general, Department of Matanzas and Santa Clara, per Special Orders, No. 143, Adjutant-General's Office, June 20, 1899; reported for duty July 8, 1899; relieved, per Special Orders, No. 194, Adjutant-General's Office, August 19, 1900.

Lieut. S. Rice, Seventh Cavalry, acting assistant adjutant-general, detailed to perform, in addition to his other duties, those of acting inspector-general Department of Havana, during the temporary absence on leave of Maj. George P. Scriven, signal officer and acting inspector-general of the department, per Special Orders, No. 190, Department of Havana, August 4, 1899. Relieved per Special Orders, No. 210, Adjutant-General's Office, September 8, 1899.

Lieut. D. E. Aultman, Second Artillery, detailed as acting inspector-general, Department of provinces of Havana and Pinar del Rio, June 2, 1899. Relieved per General Orders, No. 15, Headquarters Department of provinces of Havana and Pinar del Rio, July 25, 1899.

3. INSPECTORS-GENERAL OF VOLUNTEERS.

Lieut. Col. Marion P. Maus. Continued on duty as inspector-general of the departments of California and the Columbia. Made special investigation of accu-

sations against an officer of the subsistence department in San Francisco, regarding sales of subsistence stores. Member of board examining officer for promotion, per Special Orders, No. 248, Adjutant-General's Office, 1899. Made special investigation of the affairs of the quartermaster's department at Seattle, Wash., per letter from department headquarters, June 6, 1900.

Lieut. Col. Philip Reade. Assigned as inspector-general, Department of Dakota, per Special Orders, No. 210, Adjutant-General's Office, September 8, 1899. Reported for this duty September 30, 1899. Member of general court-martial at Fort Snelling, Minn., per Special Orders, No. 143, Department of Dakota, 1899. Made an inspection of the several organizations of the National Guard of Minnesota while in camp near Lake City, Minn., per Special Orders, No. 83, Department of Dakota, June 20, 1900.

Lieut. Col. Russell B. Harrison. Sick with yellow fever at Santiago, Cuba, August 19, 1899, and on sick leave of absence until April, 1900. Promoted lieutenant-colonel, inspector-general volunteers, January 24, 1900. Assigned as inspector-general, Department of Porto Rico, per Special Orders, No. 39, Adjutant-General's Office, February 13, 1900, and reported for this duty April 30, 1900.

Maj. Robert H. Rolfe. Assigned as assistant to the inspector-general, Division of Cuba, per General Orders, No. 42, Division of Cuba, September 28, 1899. Made a special investigation of suit brought by hotel keeper against American lady for damages by death of husband from yellow fever in hotel. Special investigation of municipal judge at Pinar del Rio. Special investigation of post-office defalcation. Designated as disbursing officer for such portion of the department of posts as may be included in the salary account of the headquarters, department of posts, and the Havana post-office, per letter of the military governor of May 17, 1900.

Maj. C. H. Murray. Continued on duty as military secretary to the military governor of the Philippines until June 5, 1900, when he was granted leave of absence on surgeon's certificate, per Special Orders, No. 19, headquarters Division of the Philippines, April 30, 1900.

Maj. Alfred C. Sharpe. Continued on duty as acting judge-advocate, Department of Porto Rico, and in addition thereto assumed the duties of inspector-general of the department January 1, 1900, per General Orders, No. 217, Department of Porto Rico, December 18, 1899. Relieved of those duties per General Orders, No. 98, Department of Porto Rico, April 30, 1900. In addition to his other duties, assigned as inspector-general in the Department of Porto Rico, per Special Orders, No. 107, Adjutant-General's Office, May 17, 1900.

Maj. Parker W. West. Directed to proceed to Manila and report to the commanding general, Department of the Pacific and Eighth Army Corps, for duty, per Special Orders, No. 199, Adjutant-General's Office, August 25, 1899, and ordered to take charge temporarily of the office of the inspector-general of that department, per General Orders, No. 50, Department of the Pacific and Eighth Army Corps, October 22, 1899. Relieved from this duty November 27, 1899, but remained on duty in the office of the inspector-general. Made monthly investigations of prisoners of war as to their release, further detention, etc. Assigned as inspector-general, Department of Northern Luzon, per Special Orders, No. 29, Division of the Philippines, May 11, 1900.

Maj. William D. Beach. Assigned as inspector-general on the staff of Major-General Lawton, commanding First Division, Eighth Army Corps, per Special Orders, No. 289, Department of the Pacific and Eighth Army Corps, October 21, 1899. Continued on this duty until assigned as inspector-general, Department of Southern Luzon, per General Orders, No. 1, Division of the Philippines, April 7, 1900.

Maj. Robert A. Brown. Appointed from the Army, September 30, 1899. Announced as inspector-general, Second Division, Eighth Army Corps, per Field Orders, No. 231, headquarters Second Division, October 8, 1899. Member of board of officers appointed to meet at Angeles to investigate certain allegations affecting the official conduct of officers of the Twentieth Kansas Volunteer Infantry, per Special Orders, No. 60, Department of the Pacific and Eighth Army Corps, March 1, 1900. Announced as assistant secretary to the United States military governor in the Philippines, per General Orders, No. 64, office United States military governor, May 9, 1900.

Lieut. Col. J. D. Miley died in the Philippines September 19, 1899.

Maj. J. S. Mallory, honorably discharged from the volunteer service August 17, 1899, per Special Orders, No. 197, Adjutant-General's Office, August 23, 1899.

APPENDIX D.

FIELD OPERATIONS.

[Extracts from reports of Maj. W. D. Beach, inspector-general, U. S. Volunteers, concerning his services with troops in the field in the northern campaign under General Lawton, October, November, and December, 1899, and in the southern campaign under General Bates, January, 1900, dated February 2 and August 1, 1900, respectively, and of Maj. R. A. Brown, inspector-general, U. S. Volunteers, of active operations, dated July 1, 1900.]

1. REPORT OF MAJOR BEACH—NORTHERN CAMPAIGN.

MANILA, P. I., *February 2, 1900.*

On October 24, in compliance with Special Orders, No. 153, Headquarters First Division, Eighth Army Corps (copy appended, marked A), I proceeded to Calumpit and thence up the Rio Grande de la Pampanga to San Isidro, reaching that place at noon October 25 and reporting to General Lawton, who placed me in charge of outposts, besides giving me instructions to the effect that all inspections of troops contemplated by General Orders, No. 32, Headquarters First Division, Eighth Army Corps, August 25, 1899 (copy appended, marked B), must be carried out during the campaign. Later I was placed in charge of the San Isidro ferry and approaches and the crossing of troops and wagon trains. The last duty was by far the most arduous, since frequent rains raised the river so as to make ferrying extremely hazardous. Various expedients were resorted to in order to facilitate the forwarding of troops and trains, and, with a party of 40 natives, the work was accomplished to the general's satisfaction, without the loss of a life or a pound of supplies.

While at San Isidro I was detailed, in division orders, as senior member of a board for the purchase of ponies, several hundred of which were obtained at an average price of \$65, Mexican.

An investigation into the alleged opening of graves by soldiers was also made by General Lawton's direction.

On November 15 I left San Isidro en route to Tayug, distant about 60 miles, where the division commander had established headquarters. While on this march I had charge of putting in a bridge over a stream at Santa Rosa, and also put in a rope ferry over the Rio Grande de la Pampanga at Cabanatuan.

On reaching Tayug, November 24, and until leaving there on December 3, my duties were varied and continuous, part of the time requiring me to be out with small detachments carrying out special instructions of the division commander, and at other times sending out rations and supplies to detachments in the field.

On returning with division headquarters to Cabanatuan, December 5, I was sent (December 6) with a troop of cavalry to Bongabong (16 miles) to investigate the alleged killing of a soldier by ladrones; this was accomplished without accident, and the next day we returned to Cabanatuan.

From December 9 to 14, inclusive, I accompanied 5 troops of the Fourth Cavalry, under Lieutenant-Colonel Hays, as engineer officer and in charge of security and information, on an expedition to the east and south of Cabanatuan, along the foothills through Sibul. (See copy of instructions attached, marked C). This movement resulted in a skirmish near Sibul, in which we had 2 men wounded, 1 afterwards dying; but the roughness of the country prevented successful pursuit, since the enemy soon scattered. The insurgents opened the fight, and on riding forward quickly I counted 25 or 30, part of them mounted, passing across our front and at the same time firing on us. Reporting the circumstance to Colonel Hays, he gave me permission to use my detachment of 6 men independently, which was done, we succeeding in getting into action some minutes before the others. Our surgeons dressed 2 of the enemy's wounded found on the field. About 2 miles beyond this point our advance entered the town of Sibul, driving out the insurgents and capturing 3 bull carts loaded with stores, consisting in part of 8 rifles, a quantity of powder and reloading material, and a lot of official papers pertaining to General Pio del Pilar's headquarters.

We having heard nothing from General Lawton, and it being necessary to carry our wounded, our advance from this on was slow. The next morning the head of our column was fired on as we continued moving south, but a reconnoissance failed to develop an enemy. About noon we were again fired on, but the insurgents, although in some force, would not stand.

On December 11 we communicated with General Lawton, who, with Colonel Kobbe's command, had reached San Miguel that day, and sent our wounded in to that place, where they could have rest and better attendance.

Information obtained from guides and other natives pointed to a concentration of insurgents at or near Biac-na-bato, for which point the command started next morning. Arriving near the Biac-na-bato, which has always been considered impregnable by the Spaniards, and at which point the last treaty between them and the Spaniards was made, a telegraph line was noticed and cut. Pushing rapidly on, the head of our column was fired on as we approached the stronghold by what was apparently an outpost across a ravine. This outpost had allowed our advance guard to pass unmolested, but as soon as the head of the column appeared in the open it was fired on with the evident intention of disabling the commanding officer. Fortunately no one was injured, and it took but a few minutes for a few men to dismount and drive the outpost off. Our advance guard, under Lieutenant Arnold, Fourth Cavalry, then pushed rapidly through the vacated insurgent station and up the canyon of the Boloon River, where they found and burned a storehouse containing a large quantity of rice, dynamite, and stores of various kinds, including several rifles. The next morning at daybreak I accompanied a detail of 70 officers and men under Major Morton, Fourth Cavalry, who thoroughly explored the canyon, destroyed a quantity of ammunition and a partially completed military post.

The same day orders came to join General Lawton at San Miguel and the return march was commenced, the place being reached about noon December 14.

On December 15 headquarters returned to Manila, arriving there on the 16th, and the accumulated office work was immediately commenced. Two days later (December 18) the General sent me to Camp Alva to inspect the Eleventh Volunteer Cavalry as to their fitness for field work. The inspection over I returned to Manila (8 miles), arriving there about 8.30 p. m., and met the General on his way to the governor-general's residence. He indicated his intention of returning at once, and told me to wait at his house. He soon returned, and, after listening to my report, dismissed the subject with the remark that one squadron of the regiment would accompany him on the trip to San Mateo.

Orders had previously been issued for this movement, and the staff officers who were to accompany him designated. Not being selected for this trip I returned to my quarters.

The following evening, about 9 p. m., the message announcing the General's death reached us, with request that troops be sent up the east bank of the Maraquina River to meet the escort returning with the General's body, as it would be necessary to come back by that route through the city of Maraquina, and it was reported that the place was held by the insurgents. It being impossible to reach Passay Barracks, 3 miles to the south, by telegraph, I rode there and carried General Schwan's message to Colonel Hays to go with a squadron at daybreak and report to General Hall. This was accomplished without incident, General Hall directing Colonel Hays to go to a point on the river opposite Maraquina and if impossible to cross, which he predicted, then to afford such protection as was possible from the west bank. Arriving at the ford it was found impassable, and judging that there were no insurgents there because there were women in sight I crossed with three men in a banca in order to convey the instructions to the commander of the escort, which was erroneously reported in view about a mile from town. After waiting there three hours the escort appeared with General Lawton's body, and I returned, accompanying the escort to Manila.

During the whole time that I have been on duty at the First Division Headquarters I have made numerous investigations and inspections of property, which have been duly reported, so that I will not repeat them here.

2.—REPORT OF MAJOR BEACH—SOUTHERN CAMPAIGN.

MANILA, P. I., August 1, 1900.

This (southern) campaign for the subjugation of the insurrectionary forces in southern Luzon was undertaken by two "expeditionary brigades" under Generals Schwan and Wheaton, respectively, the troops for these brigades being part of the First Division, Eighth Army Corps, Major-General Bates commanding. The operations in connection with this campaign consisted mainly in a movement to the southward along the Laguna de Bay by General Schwan's brigade as far as Binan, thence

southwest, west, and northwest through Silang and Indan to Naic, the cavalry moving in advance. Meanwhile, General Wheaton's brigade moved directly south from Manila and was to act as a containing force until the other brigade was in position to cut off the retreat of the insurgents, when it was to attack vigorously and drive the insurgents to the southward, the latter being at the time in the vicinity of Imus and Novaleta. The plan was not carried out exactly as devised, although entirely successful, for the Twenty-eighth Infantry, United States Volunteers, under Colonel Birkhimer (General Wheaton's brigade), attacked so vigorously at Putol Bridge, where they met intrenched insurgents on January 7, that the enemy were so completely defeated and demoralized that they hardly made another stand in Cavite province. This was two days before General Schwan's cavalry reached Naic. Had the custom of the insurgents been to make a continuous retreat, rather than to scatter and become "amigos" for the time being, the results of this combined movement would have been more apparent. As it was, the complete defeat and large casualty list completely demoralized the insurgents of Cavite province, and they made no further resistance worthy of the name.

From Cavite province part of General Schwan's brigade went southward into Batangas province by way of a mountain pass to Talisay, thence eastward to Tanauan and San Pablo, and southward to Lipa, Batangas, and Taal, having frequent combats, which invariably proved successful for us, with very few casualties on our side and not many on the part of the enemy.

Meanwhile part of General Wheaton's brigade had moved southward on the west of Lake Taal and occupied all towns of any importance.

General Schwan's next move was into Laguna and Tayabas provinces, which he overran and occupied, maneuvering the insurgents out of what was probably the most formidable intrenched position on the island of Luzon, viz., that at Majayjay.

This campaign ended in February by leaving a garrison at each important town, since which time the work of pacification, of hunting ladrones, and of dispersing bands of insurgents when they get together has been going on continuously. Many peaceably disposed natives who want to be our friends are afraid to come out openly and say so, since they know they will be killed should we abandon the towns we hold.

Certain recommendations for what were believed to be improvements in the service and in this particular department have been submitted from time to time and have always received favorable action at the hands of the department commander.

3.—REPORT OF MAJOR BROWN.

MANILA, P. I., *July 1, 1900.*

Beginning October 1, 1899, the enemy at that time still maintained an organized resistance along the whole front of the Second Division. Headquarters of the division and the main body were at Angeles on the railroad, 50 miles from Manila. Our lines curved back on the left, through Santa Rita, to Guagua, with Bacolor as a support to these two places strongly occupied by our forces. Our right extended straight back along the railroad through Calulut, occupied by a battalion, to San Fernando, the headquarters of the Second Brigade. From this latter point the troops of General Lawton's division were moving out along the line to Mexico, Santa Ana, Arayat, and San Isidro, and until the troops on this line should be sufficiently advanced no formal movement was to be made by the Second Division.

This condition of affairs lasted throughout the month of October. On the 11th and 16th of the month the enemy made two night attacks on Angeles. That on October 11 was a feeble effort, but the attack on the night of the 16th was quite a determined attempt on the part of the enemy to overwhelm the town and our forces with fire of small arms and artillery from 2 a. m. until 5 a. m. The affair was very spectacular. The enemy's fire came from about 270° of the circle; but although bullets fell like rain over the whole town the number of our casualties was 1 enlisted man killed and 9 wounded. The enemy did not advance close enough to make their fire effective and retired before daybreak to avoid a counter attack.

The time during the month was occupied with drills and target practice. The sanitary conditions received special attention, and under instructions from the division commander I made inspections regarding boiling and filtering of water, laundering, bathing, barbering, and disposal of garbage and excreta. Irregularities in this respect were corrected and there was a constant improvement during the month in the health of the command.

On November 2 the left wing was advanced to Porac and beyond, and the enemy in that direction was severely punished and pretty thoroughly disorganized by the

operations of the Thirty-sixth United States Volunteer Infantry and two troops of the Fourth Cavalry, all under command of Col. J. F. Bell.

On November 5 the right wing was advanced to Magalang. The movement consisted in the march of two columns, one from Calulut, consisting of the division scouts, two troops of the Fourth Cavalry, and one battalion of the Seventeenth United States Infantry, under command of Maj. Lyster M. O'Brien, Seventeenth United States Infantry, and the second column, two battalions of the Seventeenth United States Infantry, Col. J. H. Smith commanding, the latter officer likewise commanding the two columns when they united at Magalang.

The advance of the two battalions under Colonel Smith direct from Angeles to Magalang involved an attack on the extreme left of the enemy's line and the sweeping of it aside and likewise a flank march for these two battalions. To guard against an effort on the part of the enemy to throw a heavy force against Colonel Smith's command, the whole division was formed with the troops in position for battle, ready to deploy in a moment's notice should any movements of troops toward the enemy's left flank indicate any aggressive action on their part. The formation of the lines ready for attack answered the desire and without any advance, the enemy remaining entirely on the passive defensive. The column from Calulut met with considerable resistance from successive forces of the enemy, but these were small in number and were defeated, driven back and aside; 49 insurgents actually counted dead on the field were killed by the column. The column from Angeles under Colonel Smith met with slight resistance until near Magalang, where the enemy were in sufficient force to cause the deployment of the whole command; but the Seventeenth Infantry advanced promptly, captured the town, and drove the enemy beyond on the road north to Conception.

These two movements of the left and right wings, respectively, rectified the line for a direct advance along the line of the railroad. The 6th and 7th were occupied in organizing a system of supplies to the right wing and to the front, the rails and ties being removed from the line of the railroad for 10 miles north of Angeles. The enemy continued to occupy the line in front along the railroad in considerable force. On the 7th I accompanied Lieutenant Slavens, Fourth Cavalry, aid, in command of division scouts, on a reconnoissance to develop the left flank of the enemy, to select an artillery position and to acquaint myself with the ground, so that I could conduct a flanking force of the Ninth Infantry the following day. Our troops were all in position before daylight on the 8th, but our advance promptly developed the fact that the enemy had retired during the night. Our troops on our left flank had been unable to obtain contact on the 7th until at nightfall they reached Mabalacat in rear of the enemy in our front at Angeles. Our advance, therefore, to Mabalacat was unopposed, the enemy retiring to their strong defensive position at Bamban. Our main force advanced to Mabalacat only, but the cavalry advanced 3 or 4 miles farther and reconnoitered the position of the enemy in their trenches.

The movement of our troops thus far had been merely for the purpose of rectifying our line, and to be in position to advance promptly when General Lawton's troops should be considered sufficiently advanced on the line of operations to the east of us. The railroad had been the means of transport to Angeles, but between Angeles and Bamban the railroad was destroyed. The iron bridge at Bamban had been destroyed, partly by dynamite used by the enemy and partly by flood.

The quartermaster was therefore compelled to organize a means of supply to cover this gap, and allow for continuing such system north of Bamban till the rolling stock should fall into our hands in quantity to render the railroad of use to us. This work went on during the 9th and 10th, and was far enough advanced to warrant the forward movement on the 11th. On the 9th and 10th the enemy's position was carefully reconnoitered by Colonel Bell on the left and by Lieutenant Slavens on the right. The enemy's position had been prepared with great care. The Parao River flows through deep banks, and their position was selected on the far or north side of the river, and the trenches extended for 2 or 3 miles along a high crest. The right of their line abutted against high and difficult mountains. In front of their right and on the south side of the river was a high hill commanding their trenches and a little over a mile distant from them. Col. J. F. Bell reconnoitered this part of the position on the 9th, and after a circuitous route he reached the top of the hill to find that he was in rear of a force of the enemy in trenches on the side of the slope. Colonel Bell had with him a total of 19 men in all this, including a number of officers of his own regiment, and Lieut. Hamilton S. Hawkins and 10 men of Troop E, Fourth Cavalry. He maneuvered carefully for position and attacked the enemy in their trenches, defeated and drove them from their defenses without the loss of a single member of his party. This had a most important bearing on the final advance on the 11th. On the 10th Colonel Bell made further reconnoissance to find a practical

trail around the enemy's right flank, and he succeeded so far that when the advance was made on the 11th one battalion of his regiment was conducted by himself as a flanking party and two battalions occupied the high hill in front of the right of their line, and which his attack of the 9th had cleared of the enemy.

The morning of the 11th the main line was formed and deployed under cover at a distance of 1,000 yards from the enemy, and in continuation of the line formed by the two battalions of the Thirty-sixth Infantry on the high hills. The action was opened at 9 a. m. by a gun of the light artillery. This was the signal for the Thirty-sixth Infantry to open fire from their commanding position, the plan being that a frontal fire should be delivered at long range to occupy the enemy until Colonel Bell should appear with his flanking party, when the whole line would advance. The plan was entirely a success. After about an hour of firing the flanking party appeared, but the enemy at once ceased all opposition and fled precipitately to the rear through Bamban, where many of them were able to embark under cover on a train standing on the track waiting for them. The enemy had entirely disappeared and our troops occupied Bamban by 12 o'clock. These operations had also been considerably influenced by the operations of the right wing under Colonel Smith at Magalang, which had advanced on the 10th on the road to Concepcion and on that date had driven back a force of the enemy, killing 29 of their number. On the 11th Colonel Smith continued his advance through Concepcion to Capas, meeting considerable resistance. He arrived at Capas about 2 p. m., too late to intercept the insurgent train from Bamban, but he cut off and dispersed a small force of the enemy marching along the railroad track. This stand at Bamban was the last made by the enemy to resist our advance along the railroad. From Bamban to Dagupan many difficulties had to be overcome, but they were mostly such obstacles as nature offered in a country of heavy rains and swollen rivers and impassable roads. The rolling stock of the railroad was all burned and wrecked, stations destroyed, and one bad break divided the road north of Bamban in two sections. Just north of Tarlac the Tarlac River had left its bed and swept across the railroad track, carrying the latter entirely away for a mile or more. The night of November 11 the advanced forces occupied Capas, and the night of the 12th Tarlac was entered without resistance. The roads were so bad that the transportation, with supplies, did not reach Tarlac until the 14th. The four days from the 13th to the 16th, inclusive, were occupied in bringing up supplies, clearing the railroad wreck at Tarlac station, and rescuing a wrecked engine and repairing it for use. On the 16th an engine and a number of trucks of cars were in condition for service, and a supply of rations was guaranteed as far as Tarlac.

It had been the intention to continue the advance on the 16th, but the heavy rains made the Tarlac River impassable. On the morning of the 17th the river was low enough to be forded, but the ford was a mile in width at the crossing, and impracticable for all transportation except pack mules. This day the advance reached Gerona, from which Lieutenant Slavens, with the division scouts, made a reconnaissance to Panique. He returned before midnight to report that two engines and a number of cars were wrecked at Panique and that prompt action would probably render them of service. A company of the Thirty-Sixth Infantry, with Captains Stone and Hegeman, were sent at once to Panique, and by noon the next day, the 18th, an engine and enough trucks had been gotten in condition for use, and one battalion of the Seventeenth Infantry and two battalions of the Thirty-Sixth Infantry were entrained and proceeded to Moncada, where a wreck of 2 engines and 54 cars blocked the track. This wreck was cleared by noon on the 19th, and the advance continued to Beautista and Bayamban, the latter place reached at 5.30 p. m. Colonel Bell with one battalion of his regiment continued on up the railroad until further advance was stopped by finding the track removed 1 mile from Calisao and 5 miles from Dagupan. The next day the commanding general went over the same course and the division scouts were sent into Dagupan in an effort to communicate with General Wheaton at San Fabian. It is important to note that every town north, to and including Tarlac, was completely abandoned by their inhabitants upon the approach of our troops. This fact had an important bearing upon the comfort of our troops; the vacated houses furnished ample and most excellent quarters. North of Tarlac a large proportion of the people remained in their houses and showed all possible evidence of being glad to see us.

As the troops were advanced along the railroad, detachments of considerable strength were left at all the stations and at the important bridges. From this time on the line of the railroad was used as a long base of operations, and from it the troops operated to and occupied the country to the east and west—east to the country occupied by the troops of General Lawton's line of operations, and west, first to the mountains, and thence by three columns penetrating the mountains to the China Sea. One of these columns penetrated the mountain chain south at Dinalupijan to

Subig; one at O'Donnell to Iba; one passed around the north end through Alaminos to Dazol and Santa Cruz. Previous to the movement of the last column, under Colonel Bell, the enemy had been overtaken by the latter officer in the mountains near Mangatarem, and all their artillery had been captured by him.

During the advance along the railroad, and until the two serious breaks at Bamban and Tarlac could be repaired, the matter of transportation was the most serious problem. Enough of the rolling stock between breaks was recovered to operate the road in these separate sections, and by the 20th of December the engineers had repaired the breaks and the road was in operation from Manila to Dagupan. About the middle of December the whole of the country east to the mountains, with the troops along the Arayat, San Isidro, San José line, were transferred to the second division. This included the troops left behind by General Lawton when he went south and the troops under General Wheaton from San Fabian to Tayug.

Early in January the division commander sent me on a visit of observation along the line from San Fernando, Arayat, San Isidro, Cabanatuan, San José, Humingan, Rosales, to Bayamban. North of Arayat the troops were short of supplies and were in need of nearly everything. My full report of the situation enabled the division commander to promptly remedy the matters needing attention. General Funston, assigned to the troops along the line and in this territory as the fourth brigade of the division, soon had a line of supplies well organized, and fresh frozen meat was regularly supplied along the line to San José, 75 miles from the railroad station at San Fernando, where it was taken from the car.

About the middle of January I wished to commence the regular annual inspection of the troops in the division, but the circumstances were such that the division commander considered it advisable to defer the inspection until a later date, when the troops would be more nearly fixed in the station to which he wished to assign them.

During the months of December, 1899, January, February, and March, 1900, there was constant guerrilla warfare throughout pretty much the whole division. At first the troops were arranged by battalions in the more important towns, as centers from which they operated; but later it was found much better to occupy every town of any importance by a company, which kept the town and vicinity clear, and operate with a movable column from some central point occupied by the regiment. The greatest possible activity prevailed among the troops of the whole division. The regiment reached a degree of effectiveness in the work that would be hard to excel. In the numerous encounters that occurred our troops were nearly always on the aggressive. The effects of the excellent work done were very evident. There was a steady improvement of the general conditions, and by the middle of April all organized guerrilla bands throughout the division had been destroyed or dispersed, with the single exception of the territory to the east of San Isidro and San Miguel de Mayumo. The country in this section especially favored the flight and concealment of the insurgent guerrilla forces, and although repeatedly routed in engagements they continued to be able to keep together in some organization. During these four months I was occupied with numerous investigations, and visited 26 different towns, stations of troops, under special instructions from the division commander.

March 21 I went on a visit to Bayambon, the round trip occupying two weeks. I inclose a copy of my report of this journey, showing the nature of the duty performed on this as well as many of my other journeys much shorter and less important. Upon my return from Bayambon I began arranging for the regular inspection of the troops of the division. The Division of the Philippines was organized April 7, and the Department of Northern Luzon, to which I was assigned by this order, included all the island of Luzon north of Manila. I had completed the inspection of two battalions of the Seventeenth Infantry, when on April 19, I was ordered to accompany General MacArthur to Manila and on the tour of the southern islands of the archipelago. While I had been unable to make complete regular inspections of the troops of the division up to the date I was relieved, I had been among all the troops of the division from time to time making special inspections and investigations pursuant to verbal or written instructions of the division commander. Such visits I utilized to observe the condition of the troops in regard to sanitation, discipline, supplies, and general efficiency. Many officers would invite me to look around the quarters of their troops, noting the condition of kitchen sinks, water supply, and general state of the command and its surroundings. Other times I would express a wish to see certain features of the command, and in this manner I was quite familiar with the conditions of nearly the whole division, and where deficiencies existed or irregularities were noted I endeavored to secure proper remedial action.

APPENDIX E.

REPORT OF A RECONNOISSANCE MADE BY MAJ. R. A. BROWN, INSPECTOR-GENERAL, U. S. VOLUNTEERS.

HEADQUARTERS SECOND DIVISION, EIGHTH ARMY CORPS,
OFFICE OF THE INSPECTOR-GENERAL,
Bautista, P. I., April 4, 1900.

SIR: In compliance with verbal instructions from the division commander I left these headquarters March 21, 1900, and accompanied by Troop K, Fourth Cavalry, Capt. H. C. Benson commanding, proceeded to Bayambong and Solano, province of Nueva Viscaya.

The journey occupied seven days. One day was spent in Solano, and then the march to Bautista was made in six days.

ROADS.

First day, Bautista to Rosales, 13 miles.—This road is good at present, but it is flat and of the same level in most places as the adjacent fields, with no ditching or draining and with little or no gravel on roadway. When rainy season comes it will be impracticable as a road for regular supplies. I would recommend that the reconstruction of these 13 miles of roadway be taken up, the road to be ditched, raised, and graveled.

Second day, Rosales to Humingan, 14 miles.—This road is good and is constructed for use in rainy season. The roadway is well ditched, raised, and graveled. The bridges are in fair condition. With little work from time to time I believe the road can be used for all purposes throughout the rainy season.

Third day, Humingan to San Jose, 15 miles.—This road is good and is being still further improved by a large force of workmen. But as a result of careful examination on three journeys on the road I am of the opinion that this road will become impracticable for wheel transportation in the rainy season. The road from Bautista to San Jose, 42 miles, is practically without hills and at the present time transportation as far as San Jose is easy and simple.

Fourth day, San Jose to Carranglan, 22 miles.—This distance is ordinarily divided into two marches: First, to Puncan, 14 miles; second, to Carranglan, 8 miles. Leaving San Jose the road for 4 miles passes over flat rice fields and over bottom lands to the Talavera River. The road then follows up the Talavera River 4 miles, crossing the stream six times, and most of the distance in bed of the stream. The road in bed of stream runs over dry gravel and sand, and would be under water only when river is high and the crossings impracticable. The road then leaves the Talavera River and follows a small branch river for 4 miles. In these 4 miles the road crosses the stream fourteen times. This portion of the road was in very bad condition on my outward journey. There were many short pitches and sharp turns, and rocks and boulders in the crossings. This was being properly repaired when I passed through on my return. Repairs had been completed practically from San Jose to a point about half-way up the small branch river, a distance in all of 10 miles. The road this far was good for wagons carrying not more than 2,000 pounds. Leaving the small branch river the road pulls up a short but steep grade and then runs with slight grade into Puncan, 2 miles farther. Out of Puncan the road is good for 2 miles to Talavera River, which it crosses and then traverses a series of high rolling hills to the Rio Grande de la Pampanga, which it also crosses and enters Carranglan. There are two hard grades on these hills which will compel the wagons to carry loads of not more than 1,600 pounds. A passing examination did not disclose any means of correcting or repairing these grades, but from the excellent work and immense improvement made in the road where work had been completed on the section near San Jose, I do not doubt that the whole road from San Jose to Carranglan will, in a very few days, be in good condition for wheel transportation of all kinds.

The road, however, between San Jose and Carranglan crosses the Talavera River

seven times and the Rio Grande once. In time of flood these rivers are impassable, and this is a condition of affairs which can not be remedied. The current is swift, the channel full of rocks and bowlders, and the depth of water at deepest places in crossings now, in time of low water, is about 2 feet. A rise of 2 feet would make the crossings dangerous. Pablo Palad, presidente of Carranglan, stated that the people of Carranglan were usually shut in from the 1st of June until the 1st of December. Sometimes the rainy season started a little later and the road was used for a couple of weeks in June. I do not believe it is safe to count on using this road for supplies after June 1.

Fifth day, Carranglan to Salaza, 11 miles.—The road from Carranglan to Salaza follows up the valley of the Rio Grande, crosses a number of small streams, and crosses the Rio Grande from east to west bank, and then back again from west to east bank. The road is good and wagons can be used to Salaza, and for 2 or 3 miles beyond if necessary or expedient. Salaza is nothing—two deserted shacks used by camping parties for shelter; no shelter available for stores. The road 3 miles beyond Salaza crosses the Rio Grande again, here a small mountain stream, and then starts up a steep grade to the pass. The fifth day out I camped at this point, 14 miles from Carranglan.

Sixth day, foot of pass on south side to Aritao, 21 miles.—From the foot of the pass to the top was a walk of one hour and ten minutes. The road is cut through heavy forests and is perhaps two hundred years old. It is in good condition and plenty wide enough, but the grades make it impracticable for wagons. In several places the team could not pull up an empty wagon. The slope on the north side is longer and more difficult in places. On the return trip it took one hour and thirty minutes to make the ascent from the north side.

The road runs down the course of the Caraballo River, which it crosses about 4 miles from the top of the pass. The river is here a good size mountain stream. Four miles farther down the stream is Santa Clara, a place containing a single structure like a barracks, and large enough to shelter 50 men. For temporary purposes it might be used for shelter for both men and stores. As far as Santa Clara there are a number of up and down grades, and the road is impracticable for wagons. From Santa Clara on to Aritao is 12 miles over a good road that is entirely practicable for wagons. At Aritao the road crosses the Anix River at a good crossing. This is the line of the telegraph, but ordinary travel into the Bayambang Valley does not follow this road through Aritao. Four miles below Santa Clara a trail turns to the right from the telegraph road and runs across the hills to Dupax. Aritao is a small place, not more than 500 inhabitants, while Dupax has a population of about 3,000; and the trail across the hills gives a short cut to Dupax and to Bayambang and the valley below. The trail, however, is a very bad one, up and down short, steep hills, across the Caraballo River at a bad crossing, and there are several boggy crossings of small streams. The road from Aritao to Dupax is good and the crossing of the Magat River is good. The distance is about 4 miles greater, but the road is so much better than the direct trail that loaded pack mules can best be sent by way of Aritao.

Seventh day, Aritao to Solano, Bambang, and Bayambang, 21 miles.—From Aritao to Bambang there are two roads, one direct and one via Dupax. The telegraph line follows the direct road, but this road is not in good condition. There are two very bad crossings, one across the Magat River and another over a branch of this river, and there are numerous crossings over small streams that are in bad shape. The best road, then, is that via Dupax, the largest and most important town in the southern end of the valley. The wire from Carranglan to Aritao is intact almost the entire distance, but between Aritao and Bambang there are several stretches where the wire is missing and others where it is broken down. It would be a great advantage to run the wire from Aritao via Dupax to Bambang. Dupax is at present not on the wire, and it is there that supplies are proposed to be delivered for the troops to be stationed in the Bayambang Valley. Aritao to Dupax is 4 miles; Dupax or Aritao direct, distance either to Bambang is 10 miles. The road from Dupax to Bambang is good and practicable for wagons. From Bambang to Bayambang the road is good and practicable for wagons. The battalion of the Sixteenth Infantry have four wagons that they propose to use between Dupax and Bayambang.

At Bayambang the road crosses the Magat River, which is the most serious obstacle on the line between Carranglan and Bayambang. The Magat River has a very swift current, and at low water the deepest places in the ford are over 2 feet deep. During floods the river is absolutely impassable. At favorable times during the rainy season the river can be crossed in a small boat, but this method is always attended with more or less risk to supplies and stores so transported. This will be the condition of affairs after June 1, and all supplies possible should be across the Magat River by that date. From Bayambang to Solano is a broad, well-built macadamized road

in excellent condition. The map herewith shows the position of the roads, towns, and river above described from Carranglan to Bayambong.

TRANSPORTATION OF SUPPLIES.

My itinerary of the road from Bautista to Solano makes the distance 120 miles, divided into three sections: (1) Bautista to Carranglan, 64 miles, over which all supplies can be hauled by carts and wagons. (2) Carranglan to Dupax, 35 miles, over which supplies must be carried by pack animals. When supplies are in Carranglan in sufficient quantity the wagons can be used in conjunction with pack animals, the wagons to carry supplies as far as Salaza and to meet the pack train with fresh loads of supplies at this point at a fixed day and hour as required. The round trip from Carranglan to Dupax can be made in four days. One hundred pack mules, at 200 pounds per pack, would carry 20,000 pounds per trip. At 6 trips in thirty days this would give 120,000 pounds per month. (3) From Dupax to Solano, 21 miles, the supplies to be hauled by the four wagons of the Sixteenth Infantry Battalion and carried by ponies and caraboa as pack animals, with the assistance later of about 20 pack mules.

This schedule if commenced from Carranglan by the middle of April would give 180,000 pounds as the amount that could be carried to Dupax by June 1, and on the same date a very large and sufficient portion of this amount would be carried to Bayambong and Solano.

Supplies are moving in large quantities as far as Carranglan, and this far the problem seems already solved; but no certain system of supply is as yet in operation beyond Carranglan. Ponies for pack animals are not in sufficient numbers in the Bayambong Valley. In the whole valley there may be 500 ponies as a maximum, but I believe 300 would be nearer the correct number. The ponies, however, are of the very poorest quality, very small and thin, and in very poor condition. The work required by their owners for their own purposes taxes their capacity to the utmost. A demand for 300 ponies gave a train of 80, and these after one trip to San Jose and return could not make another trip until they had had a week's rest. A second call for 200 ponies gave a train of 42, and from what I saw of these I am sure that they can not make a second trip without a rest. A pack train from this side is therefore essential, and the resources of the Bayambong Valley for pack animals can be depended on only for work between Dupax and Solano.

The headquarters Third Battalion, Sixteenth Infantry, are at Solano, Capt. William Lassiter, Sixteenth Infantry, commanding. Officers on duty with the battalion are as follows:

1. First Lieut. John F. Preston, jr., adjutant, quartermaster and commissary, Solano.
2. First Lieut. James B. Gowan, commanding Company K, Solano.
3. Second Lieut. Jack Hayes, commanding Company I, Bayambong.
4. Second Lieut. William E. Mould, commanding Company L, Solano, with detachment at Bayambong and Dupax. This officer came to San Jose with telegrams, was ordered to Second Division headquarters at Bautista, taken sick en route, and sent to base hospital, Dagupan.
5. Capt. Walter A. Thurston, commanding Company M, Cordon.
6. Second Lieut. D. B. Lyon has been on duty with Company M carrying supplies; is to be stationed at Carranglan to receive and forward supplies.
7. Acting Asst. Surg. W. A. Dade, U. S. A.

Great difficulty has been experienced thus far in getting in supplies. The command has been living on three-fourths rations since January 15; the men are without a change of clothing, and many are entirely without shoes and barefooted. The command has been almost prostrated during the past month by an epidemic of pernicious malarial fever. Fifteen deaths have occurred since March 4, 2 of these at Cordon, 2 at Bagabag, and 11 at Solano. Those 11 were from 3 companies of the battalion. One case of smallpox has just developed. The case was in severe form, and the man was not expected to live when I left Solano March 29. Captain Lassiter showed me a letter which he wrote March 23 to the adjutant-general of the district, setting forth the situation, and from which I made the following extract:

"The several reports from this province have disclosed the unhealthfulness of the region. The principal disease is pernicious malarial fever, of which ugly rumors were made to us during our journey into it, and the true state is now shown by a record of 15 deaths and 38 per cent sick. The men have behaved well, abstaining from drink and endeavoring to conform to sanitary rules. An improvement has begun, but a heavy sick list will always exist, and for this reason the number of troops held in this province should be reduced to the minimum. The military necessity for them can be met by a command of 3 officers and 125 men, stationed as follows: Twenty-five men at Bagabag; 60 men and 3 officers at Solano; 40 men at Dupax. The Iggorrotes

keep the mountains and adjacent foothills free. The climate is deadly to the Tagalog. The provincial inhabitants are Filipinos, friendly to us and unfriendly to the insurgents. Finally, the country possesses no strategical importance.

"But the important question is that of supplies. So far, during the open season and by living on less than three-fourths rations, we have barely been able to feed the command, and should the food supply fail us entirely there will be a trail of misery and death. Clothing and such supplies we do not look for; yet the command is practically without a change of clothing.

"I have the honor to recommend that the headquarters of the Third Battalion be transferred to Echague; that three companies of the battalion garrison that place, Cordon, Oscariz, and San Luis, and that 3 officers and 125 men be held in Nueva Viscaya.

"WILLIAM LASSITER,
"Captain, Sixteenth Infantry."

The following are extracts from a letter, dated March 10, to the same authority:

"This province has 7 pueblos and a total population of 25,000, exclusive of the savage settlements. The people are satisfied with American rule, insurrectos do not exist here in bodies, and the individuals are few who willingly took any part in the rebellion.

"The products of the province are coffee and rice in abundance and for exportation. If several hundred troops are to subsist upon this country, rice must be the principal diet, and an embargo should be placed in good time upon its exportation. A variety of vegetables, both Irish and sweet potatoes, are raised, but only in sufficient quantity for the home market. A greater production will follow an increased demand. This production is being stimulated. At present potatoes and onions should be sent to the troops. These might be mainly evaporated potatoes. It was a surprise and disappointment to find the supply of cattle for fresh beef very limited. Two thousand, including work cattle, is a large estimate. Captain Dame, Thirty-fourth Infantry, who has very nearly traveled the length and breadth of the province, reports that the needs of 500 men would exhaust the supply of fresh beef in sixty days. Cattle could be purchased in Isabella, brought over the mountains before the rain, and herded for use as needed. I recommend the purchase of 100. At my request the roads and bridges throughout the province are being repaired by the citizens.

"WILLIAM LASSITER,
"Captain, Sixteenth Infantry."

First Lieut. John F. Preston, Sixteenth Infantry, gave notes of difficulties and deficiencies, and I append the memoranda. From his statement and from my own observations it appears the battalion was not furnished proper and sufficient transportation for its station in the Bayambong Valley, and that the efforts to supplement this deficiency by hiring native ponies for pack animals were unsuccessful. The remedy is to furnish the 100 pack mules already recommended. It will be noted from Lieutenant Preston's notes that his present transportation is in bad condition and can not be depended on to any great extent. He also sets forth the difficulties with the pony pack trains and how the lack of funds has hampered operations. He also contracted debts without having the money to pay them, and it also appears that there are outstanding debts contracted by other troops that passed through the valley.

Acting Asst. Surg. W. A. Dade, U. S. A., furnished me with a memoranda describing the medical and sanitary situation. A copy of this memoranda is herein inserted, as follows:

[Memoranda.]

SOLANO, March 28, 1900.

The Third Battalion, Sixteenth Infantry, left Lallo January 4, 1900, with the health of the command in excellent condition, only 12 out of nearly 500 men being unable to take up the march. By cascades on the Rio Grande del Coagayan and marching the battalion traversed a distance of nearly 200 miles over streams, valleys, hills, and mountains, and at all hours and in all conditions of weather known to the Tropics. Wetting from dews and the water of the Rio Grande del Coagayan, when compelled to sleep out at night, or wade into the river to assist in pulling the boats over the numerous shoals encountered, were experiences not calculated to conduce to healthfulness.

A scarcity of clothing and short rations were other annoyances leading up to the

present condition. Even under the painful conditions before mentioned and long marches often necessary in the hot hours of the day, the men seemed to stand the strain excellently. At Echague, where we halted for several days, when the men had opportunities to feel and realize any aches and fevers from which they might suffer, the sick rate was very low, and when leaving there only 4 men were sent to Aparri to the regimental hospital. This shows the men to have been in an excellent condition, the few cases treated being infected sores of the feet from going barefooted, mild forms of malarial fever, and diarrheas, all of which were easily checked. At Cordon, 13 miles from Echague, the health still continued. This was the last town north of the mountains. From here we came over the mountains to Bagabag, Solano, and Bayambong. We reached these stations on the 26th of February. The trip over the mountain trail was taken by as easy stages as was practical, in view of the distance necessary to be made by nightfall. When the men arrived at Solano they were in fairly good condition, excellent, in fact, considering everything they had undergone since January 4. This status was maintained until about the 10th of the present month, when it seemed as though the entire command was sooner or later to be prostrated. The first death occurred on the 4th, at Cordon, a private of Company K dying of chronic dysentery after protracted illness. The second died at Solano on the 5th, of acute Bright's disease, a private of the same company.

The men then seemed to lose all energy, appetite, and interest in everything. Malarial fever in some form or other affected more than 50 per cent of the entire command, continuing to grow worse until about the 20th, when the hospital was overcrowded. The steward, hospital corps privates, and extra help were worked to point of complete exhaustion from doing constant duty day and night. From a simple form at first, the fever seemed to take on the pernicious type, becoming the most fatal condition due to malarial poison alone I have ever seen. Strong healthy men would be assigned a cot at sick call in the morning only to be found a cold and pulseless corpse at night. The depression following a chill of this type was absolutely beyond control. Strychnine, the most universally praised heart stimulant known, had absolutely no effect when used in moderately increased doses by hypodermic injection. Brandy, whisky, aromatic spirits of ammonia, ether, and digitalis were all tried in turn in connection with artificial heat, and hypodermic and rectal injections of quinine in acid solution. Nothing used as routine treatment in malarial poisoning seemed to have a salient effect.

Quinine, Warburg's tincture, Fowler's solution, all failed, until things became in a desperate condition. Between the 11th and 25th eleven deaths had occurred from this malarial fever alone, the four others being due to chronic dysentery and Bright's disease. The epidemic reached the climax between these dates. It has somewhat abated at this time, but the exceedingly depressing condition of the climate in the immediate region keeps the sick and convalescent from gaining and holding their former physical power. The men have been fairly careful of all exposures, bathed regularly, and were discreet in their eating. Boiled water and all sanitary measures possible to employ have failed to correct the condition of affairs I have described. In addition to this, smallpox on yesterday made its unmistakable appearance. Prior to the coming of the battalion to this station I made a trip over the mountain to look into the reported epidemics of smallpox then said to be raging, but after carefully hunting for cases in Solano and Bayambong, I failed to find but one case. I posted notices warning all men of the place and presence of this case.

The towns along this valley, as far as I have been, all seem to me to be miserably situated for any other purpose than graveyards. Saturated the year around by moisture, dews, and poisons resulting from such atmospheric conditions as exist, no other state could possibly be looked for but one of constant illness. I am not in the least afraid to go on record as saying that if this command remains at its present station during the rainy season 50 per cent of its number will die. The present epidemic I believe to be due to malarial poisoning.

Company M of this battalion is stationed at Cordon, north of the mountains, and does not share in the suffering and disease I have mentioned. I visited that company on the 25th instant and found only six men in quarters, while the sick report of the other three companies beyond the mountains were far in excess of the number, as the following table of the number answering sick call in the different companies on that day will show:

I Company, Bagabag	48
L Company, Solano and Bayambong	68
K Company, Solano	47
M Company, Cordon	6

Company L did less work en route than any other company, while M Company did fully as much or the most, and if any company should be affected by the conditions

arising during the trip it should come in for its share. The fact that it does not bears out the statement that the illness is due to immediate surroundings.

W. H. DADE,
Acting Assistant Surgeon, U. S. A.

The following is an extract from morning report at Solano, March 28, 1900: "Total enlisted present, 149; sick, 43."

March 29 the record stood: "Total enlisted present, 148; sick, 53."

After receiving the memoranda from Dr. Dade I made many inquiries as I passed through the country regarding the presence of malarial fevers and the seasons in which they were most frequent. My inquiries brought information to the effect that while there was always a great deal of sickness in the valley the worst season for the malarial fevers was during the winter or dry season, but that after April 1 sickness of this kind decreased and was hardly to be found at all during the rainy season.

Attention is invited to the fact that one case of smallpox had occurred, that there is no virus on hand to vaccinate the troops, and none to vaccinate the native population.

I made a careful inspection of the quarters of the troops and their surroundings in Solano. For barracks the troops occupy two buildings. One of these was very much crowded. The men had all provided themselves with bunks at their own expense. The floors are raised 8 or 10 feet above the ground and the space underneath is entirely clear and open. Along the road from Bayambong to and into Solano for more than a mile there runs a stream, with deep banks in alluvial soil, with comparatively small volume of water and feeble current. This is the main stream through the town of Solano, and the quarters of the troops are less than 100 yards from its banks. A spring in the side of the bank is boxed in and is the source of the water supply. The stream is used for a mile or more along its course by the people of the town for all purposes—washing clothing, bathing for carabao, and as an open sewer to carry off waste of all kinds. The water used for drinking purposes is boiled, but the injurious effect of the stream above described is obtained by living in close proximity to it, and it is quite possible that the health of the troops would be better if the troops were moved even only a few miles.

The following is a list of the towns in the valley, with the population and organization:

	Population.	Cabazas.
Solano	6,000	11
Bayambong	5,000	9
Bambang	4,700	6
Bagabag	4,000	8
Dupax	3,000	8
Ibung	1,800	4
Aritao	650	8

Organization under General Order 43 in all the above towns had just been completed. Raymundo Ariola, former civil governor, has been continued in office and has been of the greatest assistance to the military authority. Civil affairs throughout the province are in an entirely satisfactory condition, no disorders, no difficulties or complaints of any kind.

Of the above towns all are in the bottom of the valley, except Bambang, Dupax, and Aritao, and I believe these three towns, especially Bambang and Dupax, will prove to be more healthful locations for our troops than the bottom towns. The valley is shaped like an oval bowl; the valley from Bagabag is the bottom, and mountains on all sides form the rim, with Bambang, Dupax, and Aritao at different points up the sides of the bowl.

CONCLUSIONS AND RECOMMENDATIONS.

First. I concur with Captain Lassiter in the opinion that the military necessities of the Bayambong Valley could be met by a force of 125 men and three officers. With the main part of the battalion at Echague and Cordon, this force of 125 men should be made a detail from the battalion and changed from time to time, thus avoiding any extended detail in the valley where the health conditions appear so very unfavorable.

Second. There are 320 men at present in the valley practically with barely suffi-

cient rations to subsist from day to day. They require about 1,000 pounds per day. The men are suffering also for clothing, especially shoes. A sure line of supply is now in operation as far as Carranglan, but no farther. I recommend that a pack train of approximately 100 mules be sent to Carranglan at once to carry supplies to Dupax. Reserve supplies for four months should be in Dupax before June 1, so that a large part of them can be carried to Bayambong across the Magat River by that date. Palay for forage should be secured in quantity at Carranglan and Dupax for the use of this pack train. It can be obtained at both places, but it will require some time to do so at Dupax.

The guard for the pack train should be mounted men. If the packers are armed with revolvers the additional guard need not be more than 15 men, as there is very little chance of attack from any parties armed. I would recommend that 15 horses and the necessary equipments be sent to Carranglan for the use of this guard. Thus equipped, the train can work continuously between Carranglan and Dupax. The trail follows mountain streams, suitable camping places are frequent, and the journey can be broken to suit the hour of day and the distance to be traveled. I believe this will be better than to make an intermediate station at Salaza or Santa Clara.

Third. Bacon in crates should not be shipped to Bayambong. The crate becomes a burden beyond San Jose, and is discarded at the latter place and the bacon carried in carts and on packs exposed to the sun and rain. I would recommend that canned bacon, 9-pound cans and smaller cans, be forwarded for the troops at Bayambong. Evaporated potatoes and onions should be sent at present. When the supply line is in running order all the way through a small quantity of fresh vegetables should be forwarded.

A supply of sales stores for two months is on hand at Solano. Sales stores, therefore, can be sent after the reserve supply of rations has been forwarded.

Fourth. The quartermaster and commissary of the Sixteenth Infantry battalion—at present First Lieut. John F. Preston, jr.—is in constant need of funds. Money had been forwarded to him from Aparri March 1, but had not reached him at Solano March 29. He was entirely out of funds on this latter date and had contracted debts almost equal to the amount en route to him. There are also a number of outstanding debts contracted by other troops. I would recommend that Lieutenant Preston be furnished funds and be instructed to pay all debts contracted by any United States troops that have been in the valley. Great difficulty exists regarding a local supply of fresh beef, but if a herd of beef cattle can be purchased in Isabella province that would seem the best solution of the difficulty. This has been recommended by Captain Lassiter.

Fifth. The telegraph line now runs direct from Aritao to Bambang and does not include Dupax. The road via Dupax is in constant use, and the line could be easier maintained via Dupax, and the latter is also an important place. More of the line is at present out of repair between Aritao and Bambang than along the whole of the rest of the line between Carranglan and Bayambong. I would, therefore, recommend that the line be constructed along the road from Aritao via Dupax to Bambang and the direct section from Aritao to Bambang be abandoned.

Sixth. There was one case of smallpox among the troops at Solano on March 29, and considerable apprehension existed with regard to it. The surgeon had been temporarily absent when the case first developed, and the man was in the crowded hospital for nearly twenty-four hours, thus exposing a number of other patients to the disease. I would recommend that virus be sent to the surgeon at Solano, both for the use of the troops and for the native population. The care of the sick in the Bayambong Valley is a matter calling for special attention. I would recommend that at an early date a medical officer be sent to the valley to carefully investigate and report upon the needs of the medical department for the proper care of the troops in that locality.

Very respectfully,

R. A. BROWN,
Major and Inspector General, U. S. Volunteers.

The ADJUTANT-GENERAL,
Second Division, Eighth Army Corps.

QUARTERMASTER.

Have been furnished with 16 mules and 4 escort wagons; no axle grease. Mules came from Aparri to Cordon without pack saddles of any kind and carried packs. Consequently backs were in a terrible condition. Most of them had two or more shoes off; no blacksmith. One developed glanders and was ordered shot. One other

in such condition that he will not be fit for use for a couple of months. No horse medicine of any kind on hand, although I have asked for it several times.

Wagons will have to be taken apart and carried across the mountains from Cordon to Bababag, and the intention is to use them in bringing rations from Dupax to Solano, the headquarters of the battalion. Mules are not broken to harness, and apparently no attention was paid to their selection for teams. They were tried in harness in bringing supplies from Canayan to Cordon, a distance of about 25 miles, last week, and their shoulders were badly rubbed, and 4 mules could haul about 1,200 pounds only. Have ordered pack ponies to Dupax to assist in bringing rations from Carranglan to Dupax.

It is almost impossible to organize a permanent pack train of native ponies, as they generally play out after two or three trips, and the natives then state that it is necessary for them to have a rest, and the consequence is that we have then to hunt up other ponies.

It is very important to pay the native promptly, and I have told them that each pack pony would receive 50 cents (Mexican) per day and each native 25 cents. I have no money to pay them, and consequently have been giving them certificates, and as nearly all the other commands that have been through this country have been doing the same thing the natives are becoming more unwilling to work each day, as they are afraid that the certificates will never be paid.

Would recommend that an officer be sent up into this country to take up all the certificates in the province. Would recommend a large pack train of about 75 animals, and that a blacksmith with full equipments be sent with them, as the shoes need looking after.

COMMISSARY.

Command has been living on three-quarters rations since January 15, and some parts of the ration, such as baking powder and soap, have been entirely missing for a month at a time. Have had no yeast or hops, and consequently could make no bread. Supply of fresh beef very limited. Have been using both Australian cattle and carabao. Command practically without a change of clothing, and a great many barefooted. Clothing of all kinds badly needed. A great deal of palay could be furnished animals at Dupax, but best not to depend on it. Sufficient funds should be shipped here to store a supply of palay to last during the rainy season.

SICKNESS.

Fifteen deaths during past three weeks; due almost entirely to malaria. It is of a pernicious type peculiar to this section of the country.

One case of smallpox was discovered the morning of March 26. Almost entire absence of typhoid fever might be taken as an indication that the water is fairly good.

JOHN F. PRESTON,
First Lieutenant and Battalion Adjutant, Sixteenth Infantry.

APPENDIX F.

Record of transportation of part of troops and their equipment.

Organization.	Date of movement.	From—	To—	Railroad with which contract was made.	Passengers.			Live stock.			Stores in excess of free allowance.
					Offic-ers.	Men.	Total num-ber.	Horses.	Mules.	Total car-loads.	
1898.											
First Vermont Volunteer Infantry.	Aug. 17	Battlefield, Ga.	Fort Ethan Allen, Vt.	Southern Rwy.		268	268				
Do. Headquarters Second Division, First Corps.	do	Rossville	do	do	44	712	756	19	24	3	6 11
Headquarters First Brigade, Second Division.											
First Georgia Volunteer Infantry.	Aug. 21	do	Knoxville	do	104	2,496	2,600	59	255	18	32 20
Thirty-first Michigan Volunteer Infantry.											
Headquarters Third Division, First Corps.	do	Battlefield, Ga.	Lexington, Ky.	Cincinnati, New Orleans and Texas Pacific.	8	36	44	19	16	2	3 2
Third Division Ambulance Corps, First Corps.	Aug. 22	Rossville	do	do	5	90	95	27	128	9	18
Headquarters First Brigade, Third Division.											
Fifth Pennsylvania Volunteer Infantry.	do	do	do	Southern Rwy.	50 101	1,271 2,543	2,644	22 44	117 235	6 11	15 31 21
Twelfth Minnesota Volunteer Infantry.											
Headquarters Second Brigade, Third Division.											
First Corps.											
Eighth Massachusetts Volunteer Infantry.	Aug. 23	do	do	Cincinnati, New Orleans and Texas Pacific.	125	3,616	3,741	66	344	23	44 21
Twelfth New York Volunteer Infantry.											
Twenty-first Kansas Volunteer Infantry.											
First Maine Volunteer Infantry.	do	Battlefield, Ga.	Augusta, Me.	Western and Atlantic R. R.	6	166	172	15		1	8
Do.	do	Ringgold	do	do	39	1,012	1,051				

First Illinois Volunteer Cavalry.	Aug. 24	Battlefield, Ga.	Fort Sheridan	Western and Atlantic R. R.	2	152	154	1,240	62	71	9	11
Do.	do.	Ringgold.	do.	do.	50	1,056	1,106					
Headquarters Second Brigade, Second Division, First Corps.	Aug. 25	Rossville.	Knoxville	Southern Rwy.	56	1,303	1,359	80	127	8	16	7
One hundred and fifty-eighth Indiana Volunteer Infantry.	Aug. 26	do.	do.	do.	7	137	144	36	106	7	19	2
Second Division, First Corps, Hospital and Ambulance Corps.	do.	do.	do.	do.								
Headquarters Third Brigade, Third Division, First Corps.	do.	do.	Lexington, Ky.	{ Cincinnati, New Orleans } { and Texas Pacific.	47	1,170	1,217	22	126	9	16	5
Ninth Pennsylvania Volunteer Infantry.	do.	do.	Knoxville	Southern Rwy.	49	1,257	1,306	19	107	8	14	7
First West Virginia Volunteer Infantry.	Aug. 27	do.	do.	do.	48	1,282	1,330	19	109	8	14	6
Sixth Ohio Volunteer Infantry.	do.	Ringgold.	Lexington.	Nashville, Chattanooga and St. Louis.	42	1,157	1,199	16	109	7	14	4
First New Hampshire Volunteer Infantry.	do.	do.	do.	do.	46	1,238	1,284	11	109	7	14	4
Second Missouri Volunteer Infantry.	do.	Rossville.	do.	Cincinnati, New Orleans and Texas Pacific.	37	1,160	1,197	17	61	5	8	5
Fifth Missouri Volunteer Infantry.	do.	do.	do.	do.								
Headquarters Third Brigade, Second Division, First Corps.	Aug. 28	do.	Knoxville	Southern Rwy.	51	1,252	1,303	29	126	9	16	6
Fourteenth Minnesota Volunteer Infantry.	do.	do.	Lexington.	Cincinnati, New Orleans and Texas Pacific.	6	182	188	178	24	11	3	2
Troops A and B, First Kentucky Volunteer Cavalry.	do.	do.	Knoxville	Southern Rwy.	48	1,261	1,309	16	111	9	14	6
Second Ohio Volunteer Infantry.	do.	do.	do.	do.	36	1,036	1,072	14	109	8	14	7
First Pennsylvania Volunteer Infantry.	Aug. 29	do.	do.	do.	42	1,175	1,217	14		1		12
Fifty-second Iowa Volunteer Infantry.	do.	Ringgold.	Des Moines.	Western and Atlantic R. R.								
Total.					999	25,757	26,756	1,982	2,405	240	320	{ 178 169 }

RECAPITULATION.

	Number.	Total.
Officers	999	
Men	25,757	26,756
Horses	1,982	
Mules } (235 carloads)	2,405	4,837
Flat cars for wagons, etc.	320	
Box cars for excess of free allowance	169	489
Total number of stock, flat, and box cars.		724

APPENDIX G.

OBITUARY CIRCULARS.

1. LIEUT. COL. JOHN D. MILEY, INSPECTOR-GENERAL, U. S. V.

WAR DEPARTMENT, INSPECTOR-GENERAL'S OFFICE,
Washington, September 20, 1899.

It is with deep regret the Inspector-General announces to the officers of the Inspector-General's Department the death on September 19, at Manila, P. I., of Lieut. Col. John D. Miley, inspector-general, U. S. Volunteers (first lieutenant, Second U. S. Artillery.)

Colonel Miley was born at Belleville, Ill., August 19, 1862, and entered the military service July 1, 1883, when he was appointed a cadet at the Military Academy.

He was promoted additional second lieutenant, Fifth Artillery, June 12, 1887; second lieutenant, Fourth Artillery, October 15, 1887; transferred to Fifth Artillery, November 12, 1887; promoted first lieutenant, February 5, 1894; transferred to Second Artillery May 4, 1898; appointed major, assistant adjutant-general, U. S. Volunteers, July 12, 1898, and lieutenant-colonel, inspector-general, U. S. Volunteers, September 8, 1898.

For ten years after his graduation Colonel Miley was on duty with his regiment in various parts of the country, and his record was that of a hard-working, painstaking man of more than usual ability, doing his whole duty and studying to fit himself for the work which might come. Being one of the brightest young officers of his arm of the service, he was selected as aid-de-camp by Brigadier-General Shafter, U. S. A., whom he accompanied to the Spanish war, and in front of Santiago won the admiration of the Army for his ability, energy, gallantry, and soldierly resolution, displaying upon the field of battle the qualifications of a brilliant staff officer. In October, 1898, Colonel Miley was appointed acting inspector-general, Department of the East, and continued on this duty until January, 1899, when he was ordered to Manila as inspector-general, Department of the Pacific. Reaching Manila in April, in May he was appointed collector of customs at Manila in addition to his regular duties, and was on this duty when he died; and he had been recommended by the chief of his corps to be transferred with at least equal rank to one of the new volunteer regiments. He was also recommended by General Shafter to be made brigadier-general of volunteers.

Colonel Miley's life was marked with conspicuous soldierly ability, and his death obs the service of one of its ablest and most promising young officers.

J. C. BRECKINRIDGE,
Inspector-General.

2. MAJ. GEN. HENRY W. LAWTON, U. S. V.

WAR DEPARTMENT, INSPECTOR-GENERAL'S OFFICE,
Washington, D. C., December 21, 1899.

With profound sorrow the Inspector-General announces to the Department that Maj. Gen. Henry W. Lawton, U. S. Volunteers, colonel, inspector-general, was killed in battle at San Mateo, near Manila, P. I., on December 19, 1899, while leading his command. Of commanding stature and conspicuously uniformed, he became the special target of the enemy's fire, to which he was habitually exposed. Amid circumstances calling for high skill and courage as well as great energy, promptitude, and endurance to insure the military success which had become familiar to him, he was struck in the heart by a bullet at the moment of victory and died almost immediately. As far as a soldier can, even to this last act of devotion, he had in the Spanish war, as in all other wars since his childhood, served his country well and as only a thorough soldier could; and, as he fell, the country has taken his name and fame to heart to cherish.

His military virtues and career deserve to be an example of faithful and devoted service. His family motto is *Droit et loyale*, and his career exemplified its spirit.

General Lawton was born March 17, 1843, in Manhattan, Lucas County, Ohio. In youth he spent a year in Missouri and Iowa. At the opening of the civil war he was residing in Fort Wayne, Ind., where, on April 16, 1861, among the earliest there to respond to President Lincoln's call for three months' volunteers, at the age of 18 years, he enlisted and was mustered in as sergeant of Company E, Ninth Indiana Volunteers. While in this service he participated in the engagements at Philippi, Laurel Hill, and Carricks Ford, W. Va. He was mustered out at the expiration of the term of service, July 21, 1861, and assisted in organizing Company A, Thirtieth Indiana Volunteers, which was mustered into service on August 20, 1861, with him the first lieutenant; and he served in the Department of the Ohio under General Buell, and was promoted captain in front of Corinth, Miss., on May 7, 1862, being then 19 years old. He served in command of this company in all the operations of the Army of the Cumberland until July, 1864, when he was assigned as inspector on the staff of General Grose, commanding the Third Brigade, First Division, Fourth Army Corps (Army of the Cumberland), in which capacity he served until November, 1864, when he was relieved to take command of his regiment. When it was veteranized, he was promoted to lieutenant-colonel November 15, 1864, and commanded it; and was commissioned a colonel on February 10, 1865, being then not quite 22 years old. Muster on the colonel's commission was withheld under the then existing laws, because the regiment did not have the required strength. He was brevetted colonel of volunteers on March 13, 1865. After the surrender of the Confederate armies he was ordered to Texas, where, on account of the good condition and discipline of his regiment, he was assigned to an independent command by the division commander, taking part in every march, campaign, battle, and skirmish in which it was engaged until mustered out in December, 1865.

He was under fire in the following engagements, viz: Shiloh, Miss.; siege of Corinth, Miss.; Floyds Fork, Ky.; Lawrenceburg, Ky.; Laverne, Tenn.; Triune, Tenn.; Stones River, Tenn.; Liberty Gap, Tenn.; Chickamauga, Tenn.; siege of Chattanooga, Tenn.; battle of Chattanooga, Tenn.; Tunnel Hill, Ga.; Rocky Face, Ga.; Dalton, Ga.; Resaca, Ga.; Adairsville, Ga.; Cassville, Ga.; New Hope Church, Ga.; Kennesaw Mountain, Ga.; Smyrna Camp Ground, Ga.; Chattahoochee River, Ga.; Peach Tree Creek, Ga.; siege of Atlanta, Ga.; Jonesboro, Ga.; Lovejoy Station, Ga.; Columbia, Tenn.; Franklin, Tenn., and Nashville, Tenn. It is well to remember that in such campaigns as this to Atlanta the soldiers were daily under fire.

He was awarded a medal of honor for distinguished gallantry in leading a charge of skirmishers against the enemy's rifle pits, taking them, with their occupants, and stubbornly and successfully resisting two determined attacks of the enemy to retake the works in front of Atlanta, Ga., on August 3, 1864.

After the close of the civil war he studied law and attended the law department of Harvard University, and while there, after the reorganization of the Army, July 28, 1866, he received an appointment as second lieutenant in the Forty-first Regular Infantry, which was declined, but on April 4, 1867, the appointment was again tendered and was accepted. He then joined his regiment at Baton Rouge, La., and soon afterwards was recommended by Col. R. S. Mackenzie for promotion to a higher grade. The regiment being ordered to Texas, he served as its regimental quartermaster until its consolidation with the Thirty-eighth Infantry, the two making the Twenty-fourth Infantry, with which he served until the reduction of the Army in 1870. At the request of Col. R. S. Mackenzie he was, on January 1, 1871, transferred to the Fourth Cavalry, then in Texas, with which he served in the expedition in 1871 against the Comanche Indians in Indian Territory and the Staked Plains of Texas, in a similar expedition in 1872, in the operations against the Indian and Mexican marauders on the Rio Grande in 1873-74, in the campaigns against the Cheyennes, Kiowas, and Comanches in 1874, and in the intervals he performed the duty of post quartermaster, in which, as in all military duties that he undertook, he excelled.

In 1876 he participated in the severe winter campaign against the Indians in Wyoming, and in the battle with the Cheyennes, November 26, 1876, which resulted in their surrender, and he was assigned the arduous duty of conveying them to the South. In 1877, stationed at Fort Clark, Tex., he engaged in the numerous expeditions from that point against Mexican and Indian marauders, including General Mackenzie's raid into Mexico, when the Kiowas were brought back as prisoners, and he was in the expedition in the mountains of Colorado in 1879 and 1880, and soon afterwards was assigned as inspector of the Department of Arkansas, serving as such until May, 1881, when he was in the campaign in the Ute country of Colorado. January 1, 1882, he was assigned as inspector and engineer officer in the District of New Mexico, serving as such until October 23, 1883, and commanding in the meantime an expedition into the Guadalupe Mountains, New Mexico. After Geronimo's

outbreak in May, 1885, he organized, in May, 1886, and led a command in that campaign into the Sierra Madre Mountains, Sonora, beyond our borders, which, as one feature of the campaign, ultimately resulted in the surrender and overthrow of Geronimo and his band—one of the most persistent and brilliant feats in the annals of Indian warfare—and these prisoners he conveyed to Florida. The adventurous spirit which marked these years, the sleepless march, the thirst amidst arid heat, and again the untold cold, and the dexterous management of men and means to the end to be accomplished, enlivened by fierce fighting, belong now to the work and epoch of the generations which redeemed an empire on the plains from savagery and bequeathed it to civilization, where cities and citizens now rule with law, and trade, agriculture, mining, and manufactures flourish abundantly. It is a book that is closed but not forgotten.

On September 17, 1888, he was appointed major and inspector-general, was promoted lieutenant-colonel and inspector-general on February 12, 1889, and colonel and inspector-general on July 7, 1898, being then a brigadier-general of volunteers in the field, in Cuba. He served as assistant in the Inspector-General's Office in Washington from September, 1888, until December, 1893, his accurate judgment and large military experience being of invaluable aid in the performance of the many delicate and important duties of administration, investigation, and inspection. Nor was his activity confined merely to office duties, but was widely extended, and occasionally led effectively toward important improvements and reforms relating to such fundamental questions as the recruiting and remount establishment. One tour of special inspections embraced visits to most of the posts in the West, as far north as Fort Canby, and down the Pacific coast to Los Angeles, Cal., and thence to Washington again. Another embraced inspections on the Atlantic and Gulf coasts and Mississippi River, from Wilmington, N. C., via St. Augustine, Fla., to Montgomery, New Orleans, Vicksburg, Memphis, Little Rock, and intermediate points, to Duluth, Minn., specially considering engineer inspections. A third great tour included the inspection of the post-exchange system. His influence in consolidating the various printing offices of the War Department into one, or while periodically inspecting the supply department, illustrated his practical methods.

In December, 1893, his health requiring a change from confining office duties, he assumed station at Los Angeles, Cal., and on September 28, 1894, was assigned as inspector-general of the Department of the Colorado, and on April 29, 1895, was assigned as inspector-general of the southern inspection district, with headquarters at Santa Fe, but afterwards at Los Angeles (as near there a home and prolonged life seemed assured), having the troops along our entire Mexican border in his inspection. He was assigned to the Department of California April 16, 1898, but joined General Shafter in the East and not in San Francisco.

The traditions of this corps affecting field service in war, perhaps, may be exemplified by an extract from Inspector-General Schriver's letter of September 14, 1864, dated Headquarters, Army of the Potomac:

* * * * *

"I beg to refer the Department to my report of casualties (three in number, on file in the Adjutant-General's Office), in which it will be seen that there have been in the inspector-general's department of the Army of the Potomac alone, during the period embraced between 1st of May, 1863, and September, 1864, 59 casualties in battle, viz: Killed, 9; wounded, 38; prisoners, 12; a greater number, perhaps, than in any other department in the Army in proportion to its numbers." * * *

And the death of General Mansfield at Antietam and of General Buford after Gettysburg may be recalled by General Lawton's well-won glory in the Philippines.

When the war with Spain began, he was serving as inspector-general of the southern district and at once asked to be given service in the field, and on May 4, 1898, was appointed brigadier-general of volunteers and assigned to the command of a division in the Fifth Army Corps, again under General Shafter, which was largely composed of regulars. The duty assigned to his command was to lead in the landing and during the first strategic march in Cuba, and in July, 1898, his command was the *point d'appui* of the operations against the Spanish forces, which he illustrated so brilliantly in the gallant capture of El Caney. His able and dauntless work gained for him the approval of his superiors and the plaudits both of his fellow-citizens and comrades. On July 8, 1898, he was made major-general of volunteers. After serving for a time as military governor of Santiago de Cuba, he returned to Washington and was assigned to the command of the Fourth Corps; subsequently was relieved from it and sailed for the Philippine Islands, through the Suez Canal in the transport *Grant*, in January, 1899, initiating such a movement of American troops, and on his arrival was assigned to the command of the First Division, Eighth Army Corps. On April 10 he captured Santa Cruz, a Filipino stronghold. Soon afterwards he led

the attack on San Rafael, one of the hottest fights of the insurrection. For his capture of San Isidro the President cabled him, as follows:

To OTIS, *Manila*:

Convey to General Lawton and the gallant men of his command my congratulations upon the successful operations during the past month, resulting in the capture this morning of San Isidro.

WILLIAM McKINLEY.

On June 1, 1899, General Lawton was placed in command of the defenses of Manila. In October, after having succeeded in clearing the country of the insurgents, he followed the retreating army northward, capturing many towns and everywhere driving the foe before him. On December 1 he captured Tayug and large quantities of stores, and soon afterwards returned to Manila, whence he started, on December 18, to San Mateo to attack a force of insurgents under a leader named Geronimo; and, whilst talking to his wounded aid, at the very moment of victory, this peerless officer, this kind-hearted, loyal, and modest gentleman, this soldier of three wars and of innumerable Indian forays and civilized combats upon two continents, in temperate zone and in Tropics, was stricken by the fatal bullet which ended his strenuous life, leaving family and friends to mourn his loss just as the ripe rewards of long, arduous, faithful, and admirable services were to be enjoyed to the full. His life and death can not be easily forgotten. His appointment as brigadier-general in the Army had been ordered before his death to mark the appreciation of his services in presence of his country's latest enemy.

When his death was announced, the President sent the following message:

EXECUTIVE MANSION, *December 20, 1899.*

Major-General OTIS, *Manila*:

I have learned with inexpressible sorrow of the death of Major-General Lawton, and ask to share with the officers and men of the Eighth Corps in their grief. One of the most gallant officers of the Army has fallen. At the time the sad news came to us his nomination as brigadier-general of the Regular Army was already made for transmission to the Senate, but no rank can enhance his fame. He rose from the ranks of the Ninth Indiana Volunteer Infantry, filling every grade in the service to that of major-general of volunteers, and in these years was conspicuous for bravery and devotion to duty. The country mourns the death of this intrepid leader. Give to Mrs. Lawton my heartfelt sympathy in her overshadowing affliction.

WILLIAM McKINLEY,
President of the United States.

In General Orders, No. 209, December 21, 1899, the honorable Secretary of War gave official expression of his appreciation of General Lawton's service, and directed at every post due military recognition and mourning by every officer for his death, and he cabled as follows:

WAR DEPARTMENT, *December 20, 1899.*

OTIS, *Manila*:

I join with the officers and men of the Eighth Army Corps in the deepest regret over the death of their heroic comrade, General Lawton. I beg you to convey to Mrs. Lawton expression of my sincere sympathy. It was the ideal death of a soldier, as his splendid courage and devotion to duty have met the ideal of a soldier's life. The sad news will be announced to the Army, and due ceremonies of respect for his memory will be directed in general orders.

ELIHU ROOT, *Secretary of War.*

The estimation in which General Lawton is held was abundantly evidenced in the expressions of sympathy, sorrow, and admiration when his death was announced. The President, Cabinet officers, statesmen, and military and naval officers, the public press and private citizens, all bore witness in strong terms to his high qualities as a man and public servant, and to the greatness and absolute devotion of his public services.

General Lawton possessed in an unusual degree the magnetic faculty of binding to himself the hearts of those with whom he came in contact, whether great or humble, so they all loved and esteemed him. How such of the enemy as met him became his friends is reported by cable from Manila as follows:

"Many Filipinos who say they knew General Lawton was their good friend express

great grief at his death. Officials of the several governments which General Lawton established, even as far north as Tayug, are sending messages of sympathy and say they wish to come to Manila and attend the funeral."

He was repeatedly commended in general orders "for vigilance and zeal, rapidity and persistence of pursuit;" "for great skill, perseverance, and gallantry" in services on the frontier against hostile Indians. It was not only easy for him to accomplish difficult and daring feats—he inspired those around him, so that he could get from each the utmost of which he was capable and accomplished what seemed impossible; and his duties were habitually so strenuously performed that it seemed to him the fortitude and endurance aroused by his own characteristic qualities belonged of right to those his example inspired. When congratulated by a friend upon his many successes, he replied, almost apologetically, "I owe it all to the good fortune of having exceptionally good men with me in all my undertakings."

How in his last days his personality impressed his fellow-countrymen may be indicated by one extract from the daily press:

"The man of El Caney is the man of the Mogollons, and the man of the Mogollons is the reincarnation of some shining, helmeted warrior who fell upon the sands of Palestine in the first crusade, with the red blood welling over his corselet and his two-handed battle sword shivered to the hilt. The race type persists unchanged in eye, in profile, in figure. It is the race which in all the centuries the Valkyrs have wafted from the war decks, have hailed from the holmgangs or helmet-strewn moorlands—the white-skinned race which, drunk with the liquor of battle, reeled around the dragon standard at Senlac, which fought with Richard Greuville, which broke the Old Guard at Waterloo, which rode up the slope at Balaklava, which went down with the Cumberland at Hampton Roads, which charged with Pickett at Gettysburg, the race of the trader, the financier, the statesman, the inventor, the colonizer, the creator, but, before all, the fighter."

J. C. BRECKINRIDGE,
Inspector-General.

3. MAJ. FRANK H. EDMUNDS, FIRST U. S. INFANTRY, ACTING INSPECTOR-GENERAL.

WAR DEPARTMENT, INSPECTOR-GENERAL'S OFFICE,
Washington, June 23, 1900.

It is with great regret that the Inspector-General announces to the officers of the Inspector-General's Department the death by yellow fever of Maj. Frank H. Edmunds, First U. S. Infantry, acting inspector-general of the Department of Havana and Pinar del Rio, who died on the 18th of June, 1900, at Quemados de Mariano, Cuba.

Major Edmunds was born at Ypsilanti, Mich., December 30, 1849, and appointed a cadet from Dakota to the United States Military Academy on July 1, 1866.

He was promoted second lieutenant First U. S. Infantry, June 12, 1871; first lieutenant, May 6, 1879; captain, January 24, 1889; major, Fifteenth Infantry, March 2, 1899; and was transferred to the First Infantry on May 18, 1899. He was appointed major and chief ordnance officer of volunteers July 18, 1898, and served as such until May 12, 1899.

He joined his regiment (First Infantry) on September 30, 1871, and served with it in various parts of the country until the breaking out of the war with Spain, with the exception of brief details at the Military Academy, and as professor of military science and tactics at St. John's College, Fordham, N. Y. He served as mustering officer in Louisiana from April to July, 1898, and as chief ordnance officer and adjutant-general of the Seventh Corps at Havana, Cuba; and was appointed acting inspector-general of the department of the province of Havana on July 25, 1899, and served in that capacity until his death.

Major Edmunds's record during all his service in the Army was that of an officer of marked ability, who was industrious, zealous, and painstaking. His work as an inspector-general was excellent, his reports and recommendations showing careful study and fine judgment. His death deprives the service of an able and promising officer.

This is the third officer whose loss the corps has been compelled to deplore during the present fiscal year: General Lawton, December 19, 1899, at San Mateo, P. I.; Lieutenant-Colonel Miley, September 19, 1899, at Manila, P. I., and now Major Edmunds, June 18, 1900, at Quemados, Cuba. Their names are sufficient attestation to the Army and the corps of the character and quality of the men whom we have thus lost.

J. C. BRECKINRIDGE, *Inspector-General.*

APPENDIX H.

EXTRACT FROM REPORT OF MAJ. W. D. BEACH, INSPECTOR-GENERAL,
U. S. VOLUNTEERS, GIVING PARTICULARS OF THE DEATH OF MAJ.
GEN. H. W. LAWTON, U. S. V., COLONEL, INSPECTOR-GENERAL, U. S. A.

HEADQUARTERS FIRST DIVISION, EIGHTH ARMY CORPS,
OFFICE OF INSPECTOR-GENERAL,
Manila, P. I., June 7, 1900.

* * * * *
I now report additional particulars with regard to General Lawton's death as told me by Major Rogers, Fourth Cavalry; Captain King, Eleventh Cavalry, and Lieutenant Fuller, Ordnance Department, my report of February 2 not going into these particulars.

General Lawton, with his aids, Captain King, Captain Sewell, and Lieutenant Breckinridge, and also Major Rogers, Fourth Cavalry, and Lieutenant Fuller, Ordnance Department, all of whom had been designated by the General to accompany him, left Manila about 9 p. m. December 18, going north past La Loma, where he was joined by Troop I, Fourth Cavalry, Lieutenant Stewart commanding, and proceeded, via roads and trails, in a northeasterly direction toward the Maraquina River opposite San Mateo.

The expedition against San Mateo, as originally planned by General Lawton while on his northern expedition, was to take the Fourth Cavalry, the Thirty-fifth Infantry, and such Macabebe scouts as were available and strike it and Montalbon from the north, without returning to Manila, first, then push south and east, passing around Laguna de Bay, taking Santa Cruz from the eastward and putting a force at once near Tayabas to cut off the retreat from Cavite, Batangas, and Laguna provinces. Then he proposed entering Cavite province from the north and Batangas province by way of Batangas and securing the surrender of all in these provinces, instead of risking an escape for them by way of the narrow isthmus near Tayabas. This plan he detailed to me at Cabanatuan on December 8, when giving me my instructions preparatory to starting out toward Biac-na-bato with the Fourth Cavalry. The plan was not carried out, General Lawton being recalled to Manila after reaching San Miguel (near San Isidro).

General Lawton's last expedition, the one against San Mateo, was planned very quietly, in order if possible to effect a surprise. The troops, consisting of one battalion Twenty-ninth Infantry, one battalion Twenty-seventh Infantry, one mounted and one dismounted squadron of the Eleventh Cavalry, had started for the rendezvous about dark December 18 in a heavy rain storm.

General Lawton was called to General Otis's quarters about 7 p. m. and advised not to start until the rain, then pouring in torrents, was over, but the former said that he did not think it would amount to much and that the various troops were already on the way and asked that it be allowed to proceed, which was granted.

An officer who was present at this interview said that General Lawton's presence on the occasion was simply superb; he had just gotten off his horse and, in his yellow slicker dripping from the heavy storm, stood before General Otis, who was eating dinner with his staff in the handsome dining hall of the governor-general's palace, General Lawton making light of the storm and begging that the expedition be not interrupted at its present stage.

At daylight, after a long night's march through the mud and rain, the command had concentrated on the high ground opposite San Mateo. The infantry was ordered to deploy in the bottom opposite San Mateo, while the dismounted cavalry was deployed and ordered to cross above, enter the town from the north, and cut off the escape of the garrison. General Lawton told Colonel Lockett, Eleventh Cavalry, who commanded the mounted force, that it would be necessary to cross as quickly as possible, since the river was rising rapidly. The deployment of the infantry was made before the general came down into the rice fields bordering the river, where firing was already going on from trenches about 400 yards distant across the river. The dis-

View of San Mateo Sugar, from hills opposite, as seen by General Lawton on the morning of Dec 19 1899.



Montalban, in river bottom

Crossing of mounted squadron 11th Cav

Dismounted squadron 12th Cav

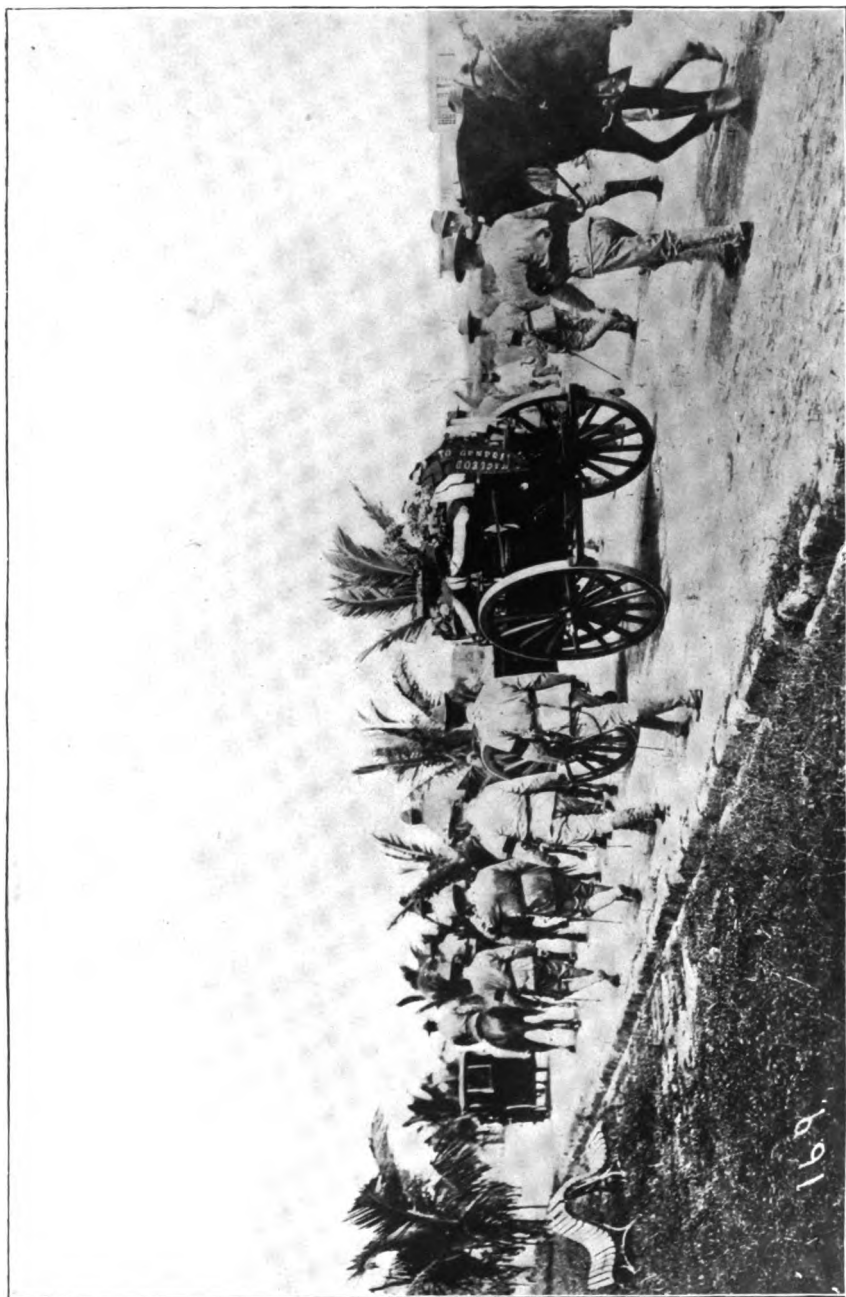
Place where Gen. Lawton was killed

San Mateo. Occupied by insurgents.

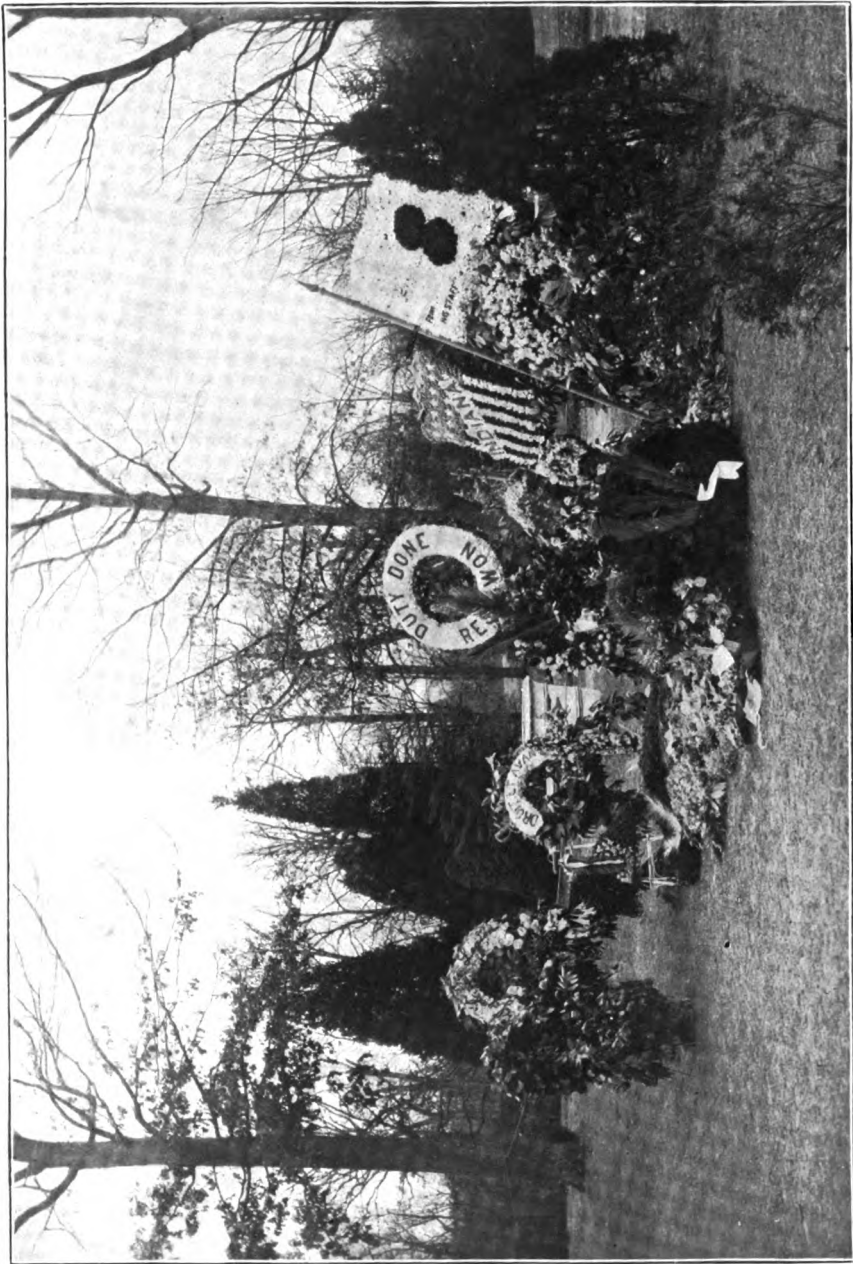
Island where Luffy stood at 11:00 AM

Boat field where Luffy deployed

Marguina or San Mateo River,
Course nearly south.



FUNERAL PROCESSION OF GENERAL LAWTON PASSING THROUGH LUNETTA, DECEMBER 30, 1899.



GRAVE OF GENERAL LAWTON AT ARLINGTON, VA.

mounted cavalry was deployed to the general's left (see sketch) and Lieutenant-Colonel Sargent, Twenty-ninth U. S. Volunteers, was assigned to the command of all the infantry and dismounted cavalry, Colonel Lockett being ordered to force a crossing of the river above San Mateo with his mounted force and proceed to Montalbon, attacking the enemy there and preventing a reenforcement of San Mateo garrison.

The plans were somewhat delayed in their execution by high water and the difficulty in finding a ford, but the mounted cavalry found a poor one and crossed by fording and swimming, having several men wounded during the operation (this was about the time General Lawton was killed); they were followed by the dismounted cavalry, who occupied the town of San Mateo, the insurgents fleeing to the eastward.

Our infantry meanwhile was keeping up a rapid fire on the trenches across the river from their positions and at the same time trying to find a ford, which they eventually did, and, after much difficulty, succeeded in crossing (the town at that time being occupied by the dismounted cavalry of Lieutenant-Colonel Sargent's command). The mounted cavalry in the afternoon, about 3 p. m., returned to San Mateo from Montalbon.

To return to the movements of General Lawton, it is recalled that about 9 a. m., while passing across the open where no shelter was available, the general told the members of his staff to open out so as not to make such a good target; they were scattered thus when Lieutenant Breckinridge was hit, he exclaiming: "I've got it," turning partly round and sinking to the ground. Lieutenant Breckinridge was then carried by the general and three members of his staff to a sheltered position where his wounds were dressed.

In answer to a question the General said that Lieutenant Breckinridge was not seriously hurt because the face of a mortally wounded man had a peculiar ashiness that was lacking in his (Lieutenant Breckinridge's).

The General, after getting Lieutenant Breckinridge fixed as comfortably as possible, said he must see how things were going and moved out into the open again. No troops were between him and the trenches. Suddenly he waived his hand before his face in a peculiar way and Captain King said to him, "What's the matter, General?" to which he replied, "I'm shot." King asked, "Where?" and the General replied, "Through the lungs." His staff gathered around him, he standing with his teeth together and endeavoring apparently to overcome his increasing faintness, then he seemed to want to lie down, which he did, and turning his head to one side blood gushed from his mouth.

He said nothing more, but died in about three minutes with his head on Lieutenant Fuller's knee. This was about 9.30 a. m. Tuesday, December 19, 1900.

Major Rogers then sent word to Colonel Lockett, Eleventh Cavalry, who during this time had with great difficulty crossed the river, that he (Lockett) was in command.

The town was taken without trouble after the crossing was made, and then the General's body was taken over in a banca.

That evening the body was incased in native mats and on the next day, December 20, it was taken to Manila.

The sketch herewith is a copy of a water color done by a member of the Hospital Corps.

APPENDIX I.

MILITARY NOTES.

[Extract from the Journal of the Royal United Service Institution, August, 1900.]

ENGLAND.

I.—Estimate of the further amount required in the year ending March 31, 1901, to meet additional expenditure mainly due to the war in South Africa and to affairs in China, £11,500,000. II.—Votes and subheads of the army estimates under which this vote will be accounted for.

VOTE I.—*Pay, etc., of the army:*

G. Gratuities to soldiers on discharge.....	£290,000	
H. Gratuities to the troops for active service.....	2,250,000	
Y. Pay, etc., of army reserve.....	10,000	
AA. Pay, and allowances in the nature of pay, of the expeditionary force for China.....	700,000	
		£3,250,000

VOTE 2.—*Medical establishment: Pay, etc.:*

C. Pay of civilian medical practitioners, etc.....	100,000	
D. Corps pay of royal army medical corps, nurses, clerks, and other subordinates.....	100,000	
E. Cost of medicines and instruments.....	150,000	
		350,000

VOTE 5.—*Volunteer corps: Pay and allowances:*

D. Camp allowances.....		500,000
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VOTE 6.—*Transport and remounts:*

A. Land and coastwise transport, United Kingdom.....	150,000	
B. Land and inland water transport, colonies.....	150,000	
C. Sea transport.....	4,000,000	
D. Purchase of remounts.....	200,000	
		4,500,000

VOTE 7.—*Provisions, forage, and other supplies:*

A. Cost of provisions, and allowances in lieu.....	150,000	
B. Cost of forage and allowances in lieu, paillassé, straw, and stable allowance.....	200,000	
AA. Supplies, etc., for the expeditionary force for China.....	500,000	
		850,000

VOTE 8.—*Clothing establishments and services:*

G. Manufactured articles of clothing, etc., bought ready-made.....		100,000
--------------------------------------------------------------------	--	---------

VOTE 9.—*Warlike and other stores:*

C. Ammunition.....	50,000	
D. Small arms.....	50,000	
F. Miscellaneous services.....	50,000	
G. Equipment stores.....	100,000	
I. Engineer stores.....	250,000	
		500,000

VOTE 10.—*Works, buildings, repairs, etc.:*

N. New works, etc., amounting to £1,000 each and upwards; barracks.....		1,060,000
-------------------------------------------------------------------------	--	-----------

VOTE 12.—*Miscellaneous effective services:*

K. Compensation for losses.....	100,000	
L. Medals.....	40,000	
		140,000

VOTE 14.—*Noneffective services, officers:*

F. Gratuities to officers in lieu of pensions.....		250,000
----------------------------------------------------	--	---------

General total..... 11,500,000

The vote for new works and buildings is made up as follows, viz:

Hut accommodation for increased garrisons in various stations.....	£500,000
Hut accommodation for increased garrisons in South Africa.....	500,000
Barracks for British battalion at Khartoum.....	} 50,000
Hut accommodation for native infantry regiment at Mauritius.....	
Hut accommodation for temporary increased garrison at Hongkong.....	10,000
	<hr/> 1,060,000
Original army estimate.....	64,809,153
Supplementary estimate now unrepresented.....	11,500,000
	<hr/>
Makes a total of.....	76,309,153
From this must be deducted appropriations in aid, viz.....	3,307,753
	<hr/>
Leaving a grand total of.....	72,999,400

INDIA.

The following full particulars regarding the expeditionary force for China are now available. A division of all arms is being sent, and its composition is as under:

Commander in chief.—Lieut. Gen. Sir A. Gaselee, K. C. B., A. D. C.

First Infantry Brigade.—Brig. Gen. Sir Norman R. Stewart. Seventh Bengal Infantry (Fort William), Twenty-sixth Bombay Infantry (Quetta), First Sikh Infantry (Kohat), Twenty-fourth Punjab Infantry (Rawalpindi), No. 1 brigade supply column, No. 39 native field hospital (Jubbulpore), No. 43 native field hospital (Lucknow).

Second Infantry Brigade.—Brig. Gen. O'M. Creagh, V. C. Second Bengal Infantry (Dera Ismail Khan), Fourteenth Sikhs (Nowshera), First to Fourth Gurkha Rifles (Bakloh), Thirtieth Bombay Infantry (Chaman), No. 2 brigade supply column, No. 42 native field hospital (Umballa), No. 47 native field hospital (Mhow).

Divisional troops.—Twelfth Battery Royal Field Artillery (Jullundur), R-7 Ammunition Column Unit (Mooltan), First Bengal Lancers (Lucknow), First Madras Pioneers (Bangalore), No. 4 Company Bengal Sappers and Miners (Roorkee), No. 3 Company Madras Sappers and Miners (Bangalore), No. 2 Company Bombay Sappers and Miners (Kirkee), 1 photolitho section Madras Sappers and Miners (Bangalore), 1 printing section Madras Sappers and Miners (Bangalore), 8 Special Signaling Units (British Infantry) (Calcutta), No. 3 brigade supply column, Section B, No. 22 British field hospital (Calcutta), No. 41 native field hospital (Secunderabad).

Line of communication troops.—Twenty-second Bombay Infantry (Mhow and Indore), Third Madras Infantry (Secunderabad), 1 telegraph section Madras Sappers and Miners (Bangalore), 1 railway section (Calcutta), 1 ordnance field park, 1 engineer field park (Fort William), Section A, No. 25, British field hospital (Madras) (as base hospital for British officers and soldiers), No. 54 native field hospital (Mian Mir), No. 63 native field hospital (Poona), No. 66 native field hospital (Bangalore), No. 4 field medical store depot (Calcutta), 1 native general hospital, 400 beds (Calcutta), 1 native military base depot, 1 base supply depot.

Strength, establishment, baggage, and tentage.—(a) All units will proceed at field-service strength and scale of establishments, relief scale of baggage, and field-service scale of tentage. Officers will take all their uniform, except tunics and mess kits, and troops will take serge or cloth clothing, in addition to field-service kit. The relief scale of baggage will be as far as port of debarkation only. (b) The native infantry and pioneer battalions will be provided with full field-service complement of 12 British officers.

Depots.—Depots will be formed as prescribed in the field-service equipment tables. Native infantry depots will be on Scale B.

Supply battery.—The Fifty-seventh Battery, Royal Field Artillery, will be the supplying battery of the Twelfth Battery, Royal Field Artillery.

Concentration and embarkation.—(a) The following units will be embarked at Bombay: Staff Second Infantry Brigade, Second Bengal Infantry, Fourteenth Sikhs, First to Fourth Gurkhas, Third Madras Infantry, Twenty-sixth Bombay Infantry, Thirtieth Bombay Infantry, No. 2 Company Bombay Sappers and Miners, No. 54 native field hospital, No. 63 native field hospital, No. 66 native field hospital. (b) The remainder of the force will be embarked at Calcutta. (c) The director of the Royal Indian Marine will arrange as expeditiously as possible for the necessary sea transport for conveyance of the force to China, all vessels to call at Hongkong for orders.

As far as possible stores of one description will be loaded together, those which are likely to be first required being loaded last in each vessel.

Field hospitals will be embarked with units, as under: With field battery, 1 section British field hospital; with native cavalry regiment, 2 sections native field hospital; with each battalion of infantry, 2 sections native field hospital.

The arms, ammunition, and equipment of each unit will accompany the unit in the same vessels or vessels, so as to be available at once on disembarkation.

The lieutenant-generals commanding the forces concerned will make all necessary arrangements for rest camps en route and for the supply of ice for troops on the line of rail, if considered necessary, and will sanction such reduction in the regulation number of troops allotted to each compartment as they may, for climatic reasons, consider desirable.

Ordnance.—All units and details will be armed with .303 rifles or carbines, and will be supplied with the necessary proportion of appurtenances and component parts of these arms.

Ammunition.—1. Scale of small arm (.303) ammunition:

	On soldier.	First regimental reserve.	Second regimental reserve.	Ordnance reserve.	Total number of rounds per man.
Artillery, per carbine					20
Regiment of native cavalry	50	100		250	400
Native infantry battalion	100	80	120	450	750
Native pioneer battalion	60	120	120	450	750
Company of sappers and miners	50	100		250	400

In addition to above scale, small-arm ammunition, at the rate of 50 rounds per rifle or carbine, will be furnished to all units for practice on voyage.

.303 Mark II ammunition only will be taken.

2. Battery ammunition.—Seven hundred and fifty rounds per gun, which will include the usual proportion of case shot, or 4,500 rounds in all, including ammunition in battery and ammunition-column charge and ordnance reserve.

3. The ordnance field park stores will be drawn from the Allahabad arsenal, supplemented as necessary from the Madras command. The personnel will also be drawn from Madras.

Machine guns.—One .303 Maxim gun on infantry field carriage and 30,000 rounds of ammunition will be issued to each battalion of infantry (except the two battalions detailed for the line of communication) and the pioneer battalion at Calcutta.

Signalers.—The 8 special signaling units (British infantry) will be detailed by the lieutenant-generals commanding the forces Bengal, Bombay, and Madras, 1 unit from Bengal, 3 units from Madras, and 4 units from Bombay.

Medical.—(a) The native general hospital for 400 beds, complete with tents, will be equipped at Calcutta and dispatched with the force under the orders of the principal medical officer, Her Majesty's forces in India.

(b) Hospital ship for the conveyance of sick from China to India will be taken up and equipped by the director of the Royal Indian Marine in communication with the principal medical officer, Her Majesty's forces in India.

(c) No transport, except obligatory pack-mule transport, will accompany the field hospital.

(d) Mosquito nets will be provided for the beds in field and general hospitals under the orders of the lieutenant-generals commanding the forces, Bengal and Bombay.

(e) Five hundred per cent reserve of medical comforts will be taken and a sufficient reserve of medicines.

Post-office.—Postal arrangements will be made under the orders of the director-general of post-offices.

Telegraph.—(a) A telegraph section from the Madras sappers and miners, consisting of 2 British noncommissioned officers, 2 havildars, 2 naiks, and 12 sappers, will accompany the force.

(b) In addition to the above establishment, 20 military signalers (to be drawn, 10 from the Punjab and 10 from the Bengal command) will be attached to the section for duty.

Railways.—A railway section consisting of 2 warrant or noncommissioned officers and 48 public followers will accompany the force.

Surveyors.—Four native soldier surveyors, to be detailed by army headquarters, will accompany the force for duty with the intelligence staff.

Press correspondents.—Officers belonging to the force will on no account be allowed

to act as press correspondents. Applications for permission to accompany the force as press correspondents will be made to the adjutant-general in India. Not more than one correspondent will be allowed for each newspaper. Officers appointed press correspondents must not be employed in any military capacity.

Concession and privileges.—(a) Staff officers, transport officers, special-service officers, and others will draw the pay of their appointments from the date of their arrival at port of embarkation.

(b) All ranks may be granted an advance of three months' pay.

(c) The troops and followers of the force will be considered on field service for all concessions and privileges from the date of embarkation until they return to India.

(d) Free passages to their homes may be granted to the families of all native followers.

(e) Concessions which are admissible from or between certain dates will have effect from such dates.

(f) The hospital and regimental (excluding silladar) establishments will receive 50 per cent batta. Commissariat-transport establishments will receive universal rates of pay and 50 per cent batta.

(g) The sanctioned followers paid by the troops will receive from Government such extra pay as may be necessary to put them on a par with the public followers of a similar class.

(h) Followers of corps and departments, including clerks, commissariat agents, and others will be allowed to make family allotments in accordance with paragraph 462, Army Regulations, India, Vol. I, Part II.

Punjab coolie corps.—(a) Two Punjab coolie corps will be raised at once under the orders of the lieutenant-general commanding the forces, Punjab. The corps will be composed of Punjabi Mohammedan coolies recruited from men accustomed to carry loads and marching. Each corps will be organized as follows: 1 commandant (regimental officer); 1 second in command (regimental officer); 2 British noncommissioned officers (departmental); 20 sirdars, at 1 per 50 coolies; 40 mates, at 1 per 25 coolies; 2 transport agents (second-class); 8 sweepers; 1,000 coolies.

(b) The establishments will receive clothing as laid down in paragraph 20.

(c) *Equipment.*—Four yards of coarse country cloth should be provided to each coolie to secure the load on the back. Daos or kukries for arming the men should be arranged for, if considered necessary, at the scale of one per follower, and taken in bulk with the corps. (The Pioneer Mail.)

SOUTH AFRICA.

The field artillery of the Boers consists for the most part of Creusot 3-inch rapid-fire guns made after the 1895 model. These guns were purchased by the South African Republic during the year 1896, after most satisfactory trials had been made under the direction of a committee consisting of artillery officers, who were sent to Creusot by the French Government at the request of that of the Transvaal. The data that follow are taken from the official documents which were published in the *Revue d'Artillerie* of March, 1897, after the termination of the experiments.

The gun, which is constructed of forged and tempered steel, has a 3-inch bore. Its total length is 8 feet and its weight is 726 pounds. The body of the gun consists of three elements: (1) A tube in which the breech piece is fixed. (2) A sleeve covering the tube for a length of 3.6 feet. (3) A chase hoop. The chamber is provided with 24 grooves of variable pitch, which have a final inclination of 8 degrees.

The system of breech closing is that of the interrupted screw, which presents four sectors, two of them threaded and two plain, so that the breech is opened or closed by a quarter revolution of the screw. The mechanism is of the Schneider system, patented in 1895, and has the advantage of allowing the opening or closing of the breech to be effected by the simple motion of a lever from right to left, or vice versa.

The gun is fired by means of an automatically cocked percussion apparatus. A safety device prevents any shot from being fired until after the breech is closed.

The carriage is provided with an hydraulic recoil cylinder fitted with a spring return. It is also furnished with a "spade," which is placed under the stock at an equal distance from the trail and the axle, and which is of the model that General Engelhardt has adopted for the Russian artillery.

During a march, this spade is turned back and fastened to the stock. The carriage is likewise provided with a road brake, which is to be employed in firing only when the nature of the ground is such that the spade can not be used.

The gun is placed in a bronze sleeve that carries the brake cylinders and the various other connecting pieces for the return spring and the aiming apparatus.

The hydraulic recoil consists of two cylinders placed laterally and at the height of the axis of the piece.

The axle has the peculiarity that in its center there is a wide opening in which are placed the cradle and the gun. It is provided with two screw trunnions, around which the pivoting necessary for lateral aiming is effected. This arrangement of the gun with respect to the axle has the effect of greatly diminishing the shocks that firing tends to produce.

Elevation and depression are accomplished by rotating the axle in the wheels of the carriage. This is done by means of a crank which, through an endless screw and pinion, controls a toothed sector attached to the sleeve.

Pointing in direction is done by means of a lever known as a tailpiece. Mounted upon the axle there are two small sights forming a line of aim that permit of bringing the carriage back in the direction of the target as soon as a shot has been fired. All that the gunner has to do is to give the piece a slight displacement laterally with respect to the carriage by means of a handwheel, which turns the gun 2 degrees to one side or the other.

The line of aim is found by a back and front sight arranged upon the right side of the sleeve in which the gun is mounted. The back side permits of aiming while the gun is being loaded. It carries a small oscillating level that indicates the elevation of the gun during rapid firing.

The weight of the carriage, without wheels, is 1,146 pounds, and with wheels, 1,477 pounds.

The ammunition consists of cartridges containing charge and projectile and having a total weight of 19 pounds. The powder employed is of the smokeless kind, designated by the letters B. N. The weight of the charge is $1\frac{1}{4}$ pounds. The projectiles are of three kinds, ordinary shells, shrapnel shells, and case shot. The weight of each is the same, say, $14\frac{1}{4}$ pounds. The shrapnel shells contain 234 balls, weighing 155.8 grains each, and an explosive charge of 3.13 ounces.

As the gun can be pointed at a maximum angle of 20° , and the initial velocity of 1,837 feet, the projectiles can be fired to a distance of 26,248 feet.

The crew necessary to serve the gun consists of six men—a gunner, a man to maneuver the pointing lever, two men to pass the ammunition, and a man to regulate the fuse. The rapidity of firing can easily be raised to 10 shots a minute.

The accuracy of the gun is most remarkable. Upon the occasion of the trials made when the guns were received, the following firing was done: A regulating shot, a first volley of 6 shots in forty-two seconds, and a second volley of 6 shots in forty-six seconds.

The fore carriage of the gun and that of the caisson are identical. They carry a chest containing 36 cartridges, and are capable of accommodating four men.

The back carriage of the caisson carries two chests like that of the fore carriage.

The total weight of the gun and fore carriage loaded is 3,790 pounds, and that of the caisson 4,330 pounds. For the above particulars and the illustrations we are indebted to La Nature.—(Scientific American.)

CHINA.

The following is a résumé of an article which recently appeared in the *Russkii Invalid* on the Chinese army, written by an officer of the Russian general staff.

The military organization of China is utterly different to that of European nations. Without doubt, the extraordinary and complicated grouping of the Celestial military forces are due to historical and geographical factors, and to the great differences that exist both on political and religious grounds between the various peoples of that immense Empire. The Chinese army may be divided into three great portions, viz:

(1) The old armies; (2) the new armies; (3) the Mongolian and Thibetan militia.

It should be added that in the event of absolute necessity the Government has the right to decree the raising of militia in all the provinces.

(1) The old armies consist of: (a) The imperial or banner troops (Manchus or troops of eight banners). They serve to keep the Manchu dynasty, foreign to the population, on the throne. This dynasty has reigned since 1664. (b) The provincial troops (green flags). Their duties are to preserve order and tranquillity in the interior.

(2) The new armies are composed of corps of comparatively recent formation, and were especially raised on account of the recent wars of China against foreigners (Europeans and Japanese).

(3) The Mongolian and Thibetan militias do not exist in peace time, except on paper.

There is no general system of organization common to these different armies. Each has its own rules and customs. It may be as well, however, to look with some detail into the Chinese military forces, with special reference, on account of the present campaign, to the Pekin troops and those of the province of Chi-Li.

I. THE OLD ARMIES.

A. *The army of the eight banners.*—These troops were originally recruited from among the conquerors of China (the Manchus), to which Chinese and Mongolian contingents have been added from time to time. Commands and military employments are hereditary in this army. Each of the three nationalities represented in this force form a separate group of 8 units (banners), viz, 24 in all (8 Manchu, 8 Chinese, and 8 Mongolian). The colors of the banners are: First unit, yellow; second unit, white; third unit, blue; fourth unit, red; fifth unit, yellow with red border; sixth unit, white with blue border; seventh unit, red with yellow border; eighth unit, blue with white border.

The troops of the eight banners and their families are at present divided into three armies, viz.: (a) The Pekin army, (b) the provincial armies, (c) the armies of the three Manchu provinces.

(a) *The Pekin army.*—These troops and their families are quartered in Pekin and its neighborhood. They form a considerable portion of the population of the capital.

Each Manchu and Chinese banner consists of five regiments, and each Mongolian of two, viz: Forty Manchu regiments, 40 Chinese regiments, 16 Mongolian regiments; total, 96 regiments.

These regiments are subdivided into companies of from 90 to 300 men, but this division into regiments and companies is purely administrative and has no military significance. The army of the eight banners consists at Pekin of a total effective strength of 127,246 men, but deducting those used for police purposes, guardians of tombs, etc., the real strength is reduced to 56,357 soldiers.

(b) *Provincial armies.*—These are divided into 30 or 40 garrisons, and may be estimated at about 41,834 men.

(c) *Armies of the three Manchu provinces.*—Each of these provinces has its own army, making a total of 36,875 men.

Other garrisons of the northern frontier consist of 4,875 men.

Thus the troops of the eight banners in the whole of the Chinese Empire have an effective of 210,830 men.

B. *Green flags.*—These consist of Chinese volunteers enlisted for varying periods of service. Officers obtain their rank as the result of an examination. They are, in fact, territorial units which are under the orders of the governors of provinces. They are used for garrison duty in provincial towns to provide escorts for convoys (generally prisoners), for police duty, to protect the lines of communication, etc. They are divided into military and naval forces, and are liable to service on rivers. Their value varies according to their religion. Those of Chi-Li are the best. The total number of the green flag army may be reckoned at 475,177 men.

II. THE NEW ARMIES

Consist of: (1) Enrolled or conscript armies (irregulars); strength, 98,161 men. They are raised at the initiative of the viceroys and governors of provinces in the event of revolution or of war with Europeans. (2) The active armies. They are dressed like Europeans, and are formed by the help of the best men drawn from the green flag army; strength, 210,737 men. These troops occupy important strategic points, and are employed on operations in open country. They are under the orders of the provincial authorities. The best are those of the province of Chi-Li, thanks to the efforts of Li Hung Chang. Special mention should be made of the troops of Nieh, 1,500 men, those of You Chi Kai, 17,000 men, the troops of the new frontier, 24,749 men, and of the troops for the defense of Manchuria, 13,500 men.

These later troops, recruited from the native population, were raised in 1885. They are concentrated at Moukden, Kirin, and Tsitsikar. They are divided into three divisions, each division consisting of 8 infantry battalions of 500 men each; 2 cavalry regiments of 250 men each; 20 modern guns; total, 13,500 men and 60 guns. The reserve of this army consists of 35,000 men.

III.—MILITIAS.

Mongolian militia.—One hundred and seventeen thousand eight hundred and twenty-three men on a war footing, but in reality this armed force only exists on

paper. In peace time only a few units are organized for guarding roads and telegraphs.

Thibetan militia.—Six hundred and forty thousand men in war, 3,000 in peace time, divided into six units.

Armament.—These troops have various arms, such as bows and arrows, spears, pikes, axes, matchlocks, etc.; but they also have modern quick-firing and magazine rifles (Mauser, Remington, Enfield, Winchester, Martini-Henry, Martini-Peabody). The number of these modern rifles is estimated at 500,000. The field artillery has guns of 40, 50, 60, 75, 80, and 90 millimeters of the Krupp system, Nordenfeldt, Hotchkiss, etc., and Gatling machine guns. Garrison and coast artillery are provided with guns of 40, 60, 75, 80, 90, 120, 150, 170, 210, 240, and 280 millimeters. These guns come from the Krupp or Armstrong works.

THE CHI-LI ARMY.

The seizure of Kiao-Chiau, Port Arthur, and Wei-hai-wei by the Europeans, the numerous territories and railways that the Celestials had to cede to foreigners, the strengthening of European forces in the Far East latterly obliged the Chinese Government to recognize its own weakness and to study means to remedy it. It resolved, therefore, to form a proper army, capable of preserving the integrity of the Empire. The army of Chi-Li was in consequence reorganized by the Chancellor Yun-lu, with the help of Lu-Chang, who had lived for some time in Germany.

The following is the summary of the reorganization proposed by Lu-Chang:

All the troops of Chi-Li, with the exception of the army of the eight banners, are under the sole command of the Chancellor Yun-lu, and form an army thus constituted:

A. One army corps of five divisions. General staff at Peking. Each division includes troops of all arms, but these divisions appear each to have its rôle laid down in advance.

First Division (the advanced guard):

Infantry	rifles..	8,000
Cavalry	sabers..	1,000
Artillery	guns..	64

Second Division (rear guard):

Infantry	rifles..	5,448
Cavalry	sabers..	2,000
Artillery		

Third Division (right wing):

Infantry	rifles..	5,190
Cavalry	sabers..	492
Artillery	guns..	60

Fourth Division (left wing):

Infantry	rifles..	4,784
Cavalry	sabers..	3,520
Artillery	guns..	64

Fifth Division (center):

Infantry	rifles..	4,800
Cavalry	sabers..	1,600
Artillery	guns..	48

B. A sixth division under General Nieh. Staff at Lu-tai.

Infantry	rifles..	6,400
Cavalry	sabers..	400
Artillery	guns..	32

C. A seventh division under General Nieh. Staff at Lu-tai.

Infantry	rifles..	4,800
Cavalry	sabers..	4,200

The total forces of Chi-Li thus organized, not including 56,357 soldiers of the army of eight banners, consist of:

Infantry	rifles..	39,822
Cavalry	sabers..	12,492
Artillery	guns..	268

Making a total of more than 60,000 combatants. (Precis from *Revue du Cercle Militaire*.)

FRANCE.

The following is the composition of the French expeditionary force for China, as detailed by Monsieur de Lanessan:

Commander in chief.—General Voyron.

First Brigade (General Frey).—Sixteenth Marine Infantry Regiment, 3 battalions of 600 men each; Seventeenth Marine Infantry Regiment, 3 battalions of 600 men each; Eighteenth Marine Infantry Regiment, 3 battalions of 600 men each; 4 mountain batteries of 80-millimeter guns, 2 field batteries of 80-millimeter guns, 800 men, 720 mules; a section of artillery artificers (50 men); a telegraph section (50 men); a hospital orderlies' section (50 men).

A section of engineers of 50 men will be formed from the marine artillery, which will be broken up on the arrival of the engineers detailed for the war.

The Sixteenth Regiment, 2 mountain and 1 field batteries of 80-millimeter guns are already at Taku. The Seventeenth Regiment and the two other mountain batteries of 80-millimeter guns left France on the 1st and 3d of July by the *Nive*, the *Cachar*, and the *Columbo*. The First Battalion of the Eighteenth Regiment, as well as artificers', telegraphists' sections, etc., left France on the 12th July by the *Vinh-Lonh*; the two other battalions of the Eighteenth Regiment embarked on the 18th and 19th July on the *Sinai* and *Tigre*. Finally, the last field battery of 80-millimeter guns will leave Toulon on the 1st August by freight ship.

The strength of the marine infantry battalions will later be raised from 600 to 800 men.

Second Brigade (General Baillond).—A regiment of zouaves (4 battalions of 1,000 men each); a regiment of infantry (3 battalions of 1,000 men each); a group of 3 batteries of 75-millimeter guns, 550 men, 518 mules; 2 companies of engineers (500 men, 95 mules); 2 squadrons of Chasseurs d'Afrique (300 men, 300 horses); a section of artillery park (130 men); an engineers' divisional park (40 men); detachments of administration troops and military transport for the different services of an independent division (800 men).

The troops of the Second Brigade will probably leave from the 10th to the 20th August, partly from France and partly from Algiers.

The question regarding the dispatch of a battery of 120 court, 2 companies of military transport, a railway and a balloon section are still under consideration.

Ammunition.—Men of the two infantry brigades have 120 cartridges; the batteries of marine artillery are provided with 900 rounds. A further reserve of 500 rifles and 2,500 rounds for 80-millimeter guns, and 1,000,000 cartridges were sent by the *Nive* and the *Vinh-Lonh*. A reserve complement of 500 cartridges per rifle and 500 rounds per gun will be always kept up, and will be distributed until further orders, partly at Saigon and partly at the base of operations.

Maps.—The topographic department of the expeditionary force, in addition to the maps already provided, will receive shortly, at Taku, 500 specimens of the map of the Pechili district, published by the Japanese staff.

Cookies.—In order to minimize as far as possible fatigue to the troops, 10 Anamite coolies per company or battery, carefully selected by the commander in chief of Indo-China, will be shipped at Saigon. If these are unable to stand the cold climate, they must be replaced by Japanese or by Chinese from Fan-Kien or Formosa.

Clothing and equipment.—All men of the First Brigade have colonial clothing, arms, equipment, and camp equipment, including the tente d'abri. They will take, besides, their cloth trousers. Each man will be provided with a mosquito net and a waterproof sheet 2 meters long by 1.20 meters wide. A permanganate of potash filter will be given to each half section.

The men of the Second Brigade will be provided with all necessities for a field kit, including the tente d'abri. On account of the want of special clothing for crossing the Red Sea they will have cotton jumpers and trousers issued to them. They will be provided individually with a waterproof sheet and with a filter to every half section. It will not be necessary to issue mosquito nets, on account of the time of the year the men will arrive in China, viz, the end of September.

An order for 15,000 khaki garments has been sent to Saigon, in order that the men of the expeditionary force may be suitably and uniformly clothed.

The dress for the cold season will be similar to that worn in winter in France. Every man will receive in addition 1 woolen knitted vest, 1 pair of drawers, 2 pairs of woolen socks, 1 large pair of gloves, an Alpine Chasseur's cap and leggings, and a large woolen wrap in addition to the usual camp covering.

Five hundred large colonial tents for 16 men will be sent to Taku, to be used for stationary camps and to shelter men not taking part in flying columns.

Transport.—Animals sent from France are not likely to live long in China, and will besides be greatly tried by the long sea voyage. It has therefore been decided to reduce their numbers as far as possible by limiting them to those necessary to mount the two cavalry squadrons, horse the batteries, and to transport the engineer material. In addition to these there must be about 100 saddle horses or mules and 250 draft mules to each brigade to carry tools, medical stores, ammunition, and baggage. The transport of two days' rations, which are indispensable, will require besides 180 draft mules per brigade if transport by junks, coolies, or wagons is not obtainable. The transport for the engineer divisional park must also be provided for as well as the infantry and artillery ammunition sections, sanitary impedimenta, possibly ballooning material, and, finally, administration convoys.

To meet all these requirements the minister of foreign affairs has been requested to purchase 3,000 horses or mules in Korea, and a remount service has been organized for the purchase of animals in China and at Tonkin. Orders have been issued for the purchase of 450 Lefevre carriages, which should render good service in the flat country in northern China.

Administrative services.—The personnel of these services for the First Brigade will be furnished by the navy, and that of the Second Brigade by the war department. But all the revictualling of the expeditionary force will be under the entire control of the navy, the chief commissariat officer sending in the necessary proposals and requisitions to ensure the proper carrying out of this important service; 200,000 rations have already been sent to Taku on the 1st July, 350,000 on the 12th July, and 400,000 on the 19th July. Steps will be taken that by September next there will be a reserve of six months' provisions, about 2,700,000 rations, established at the base of operations. Ten field bakeries per brigade will be provided for making bread. Although there is a large reserve of preserved meat, it is recommended that use should preferably be made of animals on the spot, fresh meat being better for the health of the troops. A large reserve will also be formed at the base of operations, consisting of clothing, large and small articles of equipment, tobacco, skates, and rough shoeing for ice traffic, for harness and draft animals.

The chief commissariat officers are especially recommended to take steps to procure firing for the winter months, as the number of troops of the different European nations will soon exhaust local resources.

Medical service.—That of the First Brigade will be under the navy, and that of the Second Brigade under the war department. Besides the two doctors belonging to each battalion, each brigade will have a divisional ambulance and field hospitals. The *Nive* will be used as a hospital ship, and other ships will be used for the transport of the sick and wounded. (Precis from *Le Progres Militaire*.)

GERMANY.

The following is the composition of the German expeditionary force to China, as given by the *Militär-Wochenblatt*:

Commander in chief.—Lieutenant-General von Lessel.

First East Asiatic Infantry Brigade.—Major-General von Gross, General von Schwartzkoff. Place of formation, Berlin (Third Guards Infantry Brigade); First East Asiatic Regiment (First and Second Battalion Guards Fusileer Regiment with 4 doctors); Second East Asiatic Regiment (Second Regiment of Foot Guards, with 4 doctors).

Second East Asiatic Infantry Brigade.—Major-General von Kettler. Place of formation, Berlin (Second Guards Infantry Brigade); Third East Asiatic Infantry Regiment (Third Regiment of Foot Guards, with 4 doctors). Fourth East Asiatic Infantry Regiment (Fourth Regiment of Foot Guards, with 4 doctors). All these regiments consist of 2 battalions of 4 companies each.

Cavalry.—Place of formation, Potsdam. East Asiatic Cavalry Regiment (First Uhlan Guard Regiment).

Artillery.—Place of formation, Jüterbog. East Asiatic Field Artillery Regiment, 4 batteries, with 4 doctors; a light ammunition column; a half field howitzer ammunition column; a battery of heavy field artillery (howitzers).

In addition to the above, the following will accompany the force: An East Asiatic Pioneer Battalion, formed at Harburg, with 2 doctors; a telegraph section, formed at Berlin, with 1 doctor; a railway company, formed at Berlin, with 1 doctor; an army medical company, formed at Flensburg, with 8 doctors; an ammunition column section, formed at Jüterbog, with 2 doctors. It consists of an infantry ammunition column, a field artillery, and field howitzer, and a heavy field artillery ammunition column.

The military transport, formed at Spandau, consists of 2 provision columns, 1 field-bakery column, and 4 field hospitals, three with 6 and one with 5 doctors.

Station commands, formed at Berlin.

Horse depot, formed at Posen.

Personnel of field hospital, formed at Alt Damm, consisting of 19 military doctors.

Clothing depot, formed at Berlin.

Personnel of the control of military train, formed at Karlsruhe.

The hospital ship of the expeditionary force will be under the direction of 10 military doctors of various rank.

The sums allowed for drills and musketry to be carried out on broken ground and in the camps of instruction have been fixed as follows:

The Guard Corps	£4, 250
First Army Corps	4, 650
Second Army Corps	3, 750
Third Army Corps	3, 350
Sixth and Sixteenth Army Corps	4, 750
Seventh and Eighth Army Corps	6, 000
Ninth Army Corps	4, 450
Tenth and Eleventh Army Corps	3, 550
Fourteenth and Fifteenth Army Corps	5, 250
Seventeenth Army Corps	4, 050
Eighteenth Army Corps	3, 800
General inspection of cavalry	50
General inspection of foot artillery	150
General inspection of military education	90
Inspection of jaegers and schützen	4, 000
Inspection of infantry schools	750

These funds are at the disposal of army corps commanders, and whatever remains over from them for one year may be brought forward to the next. According to instructions, allowances from these funds may be given to—

1. An officer detailed, on duty, for a reconnoissance ride; this ride not to exceed two days.

2. Officers detached to another garrison to give or to follow a course of instruction in equitation. These latter allowances are fixed as follows, viz: To captains 4s., to lieutenants and sublieutenants 3s. Officers on rejoining their own garrison after such a course are refunded their traveling expenses.

It is strictly forbidden to expend any of these funds on the following, viz: (1) On maneuvers or drills for which there are already funds set apart in the budget, such as autumn maneuvers, attack and besieging of fortified places, cavalry instruction rides, musketry schools, and field artillery gunnery practice; technical drills for foot artillery, pioneers, etc., as well as for drills which may be carried out on the garrison drill grounds. (2) For the cost of inspection journeys. (3) For the hiring of land with a view to increasing the area of maneuver ground. (4) For the making of targets or for the purchase of ball ammunition. (*Bulletin de la Presse et de la Bibliographe Militaire.*)

RUSSIA.

During 1899 the Russian army underwent several changes in its organization, especially as regards the troops in the Caucasus, Turkestan, and eastern Asia.

In the Caucasus and in Turkestan the existing military forces were regrouped without being numerically increased. In Siberia, on the other hand, they were largely augmented and the reserves entirely renumbered.

In consequence of all these changes the situation of the Russian military forces in eastern Asia at the end of 1899 was as follows:

The Siberian military district.—First West Siberian Line Battalion. Third West Siberian Cossack Regiment. The local Omsk and Irkoutsk Brigade. Seven reserve battalions, forming on mobilization 7 regiments of 6 battalions, one being a depot. The Siberian Reserve Artillery group (2 batteries); in war-time, 4 groups (8 batteries).

The Amour military district.—Brigaded troops: Two East Siberian Rifle Brigades, each of 4 regiments of 2 battalions. First East Siberian Brigade of 4 battalions. Second East Siberian Brigade, 5 regiments of 2 battalions. The Oussouri Cavalry Brigade (regiment of Primorski Dragoons, First Regiment of Trans-Baikal Cossacks from Tschita, Oussouri Cossack sotnia). First East Siberian Artillery Brigade (8 batteries). Second East Siberian Artillery Brigade (4 batteries). Two East Siberian Artillery Parks.

Unbrigaded troops: Second and Fourth East Siberian Line Battalions. Striétenak Reserve Battalion, Tschita Reserve Battalion (forming, in case of war, 2 regiments of 4 battalions and an independent battalion). Group of Trans-Baikal Artillery (2 batteries). East Siberian Engineer Battalion. Company Cadres of Military Train forming a battalion in war time. First Oussouri Railway Battalion. Cossack troops (additional to those mentioned above). First Nertschinski Cavalry Regiment. First Trans-Baikal Cavalry Regiment. First Cossack Battery. Second Cossack Battery. Regiment of Amour Cossacks.

Fortress troops (at Vladivostok): First and Second Infantry fortress regiments of 3 battalions each; 1 company of fortress artillery; 2 companies of fortress sappers and miners; 1 company of engineers; 1 telegraph detachment.

(At Novokievskoïe): One company of fortress sappers and miners; a detachment of fortress artillery.

(At Nicolaïevsk): A company of fortress artillery.

The territory of Kwantum, which forms the southern point of the isthmus of Liaon-Toung, where Port Arthur is situated, was, as one knows, leased to Russia by China for twenty-five years by a contract dated March 27, 1898. This territory was formerly attached to the Amour military district. It was constituted into an independent government, under the direct orders of the minister of war, by a ukase on August 28, 1899. The troops stationed there are: Third East Siberian Rifle Brigade of 4 regiments of 2 battalions; the artillery of this brigade (3 batteries); an engineer company, with telegraph detachment; the Werchuz-Oudinski Cossack Cavalry Regiment; 2 battalions of fortress artillery of 3 companies each.

According to the Rouskii Invalid, a decree of the 1st of June last authorizes the opening of the Trans-Baikal Railway for travelers and for goods traffic. The first portion (63 kilometers) goes from Irkoutsk to the Baikal Lake. At the station at the latter place the train is placed upon a steam ice-breaking raft and landed at the station of Myssovski. It then runs along the rails for about 1,065 kilometers to Striétenak, on the river Amour. From thence the journey is continued by steamer on the Amour to Khabarovsk, from which place the Oussouri Railway line commences.

On the Trans-Baikal line the towns of Verknéoudinsk, Tschita, Nertchinsk, and Striétenak are situated. It is from the station of Kaidalovsk, near Tschita, that the Chinese branch, at present in course of construction, starts, which runs to Port Arthur. The Trans-Baikal Railway is thus the last link of the trans-Siberian in the direction of Port Arthur, and is now in almost complete working order.

A traveler can at the present time (from July of this year) go from St. Petersburg to Port Arthur in twenty-nine days, in the following manner:

	Days.
From St. Petersburg to Irkoutsk, express train.....	12
From Irkoutsk to Striétenak, by the Trans-Baikal.....	4
From Striétenak to Khabarovsk, by steamer on the Amour.....	7
From Khabarovsk to Port Arthur, by Nikolski.....	6
Total.....	29

Thus, in a very short time, Russia in Europe will be connected by rail with its most distant points d'appui in the extreme east—Vladivostok and Port Arthur. It is unnecessary to lay stress on the immense importance of this from a military point of view.

The various forces stationed in the Siberian and Amour districts, as well as at Port Arthur, have been shown above. All these troops may be assembled, wherever necessary, in a comparatively short time, by means of the East Asian railways. The garrisons of Port Arthur and Vladivostok can receive as many reinforcements as necessary to prevent a landing, not taking into consideration the fact that these places can be readily assisted by the Siberian flotilla and by the Pacific Squadron. No other European power, desirous of entering into a conflict with Russia in these regions, could find themselves in an equally advantageous position. Just as the railroads which Russia has thrust towards eastern Asia assure her a preponderance in those latitudes, so does the Trans-Caspian Railway provide her with an equally advantageous position in Central Asia.

By the branch line which goes to Andidjan troops may be placed on the frontier of western China, and by the line from Merv to Kouchk they may be massed on the Afghan frontier, 130 kilometers from Herat.

These lines may be useful in a very short time, not only to the troops from Turkistan, but also to those from the Caucasus.

A dispatch of troops from the Caucasus to the Afghan frontier was made, as a tentative measure, in the beginning of January, 1900. A detachment of one battalion

was transported, with all its impedimenta, by two trains from Tiflis to Bakou, by sea from Bakou to Krasnovodsk, and again by train from Krasnovodsk to Kouchk. This trial has shown that in less than eight days the heads of columns of an army corps leaving the Caucasus may arrive at the advanced post of Kouchk.

As regards the instruction of officers, special attention has been given to the study of foreign languages. Centers of instruction have been formed in military districts for the study of French and German.

A military school for the teaching of Hindustani, of which the course lasts for two years, now exists at Askhabad. Several officers have already obtained certificates at this school. On the 13th of July, last year, an oriental institute was opened at Vladivostok for the study of Chinese by officers. This language will most certainly become of increasing importance for Russian officers.—(Precis from *Revue du Cercle Militaire* and *Rousskii Invalid*.)

APPENDIX J.

REPORTS ON THE IDEAL RATION FOR AN ARMY IN THE TROPICS.

1. EXTRACTS FROM REPORT OF CAPT. EDWARD L. MUNSON, ASSISTANT SURGEON, U. S. A.

[NOTE.—For complete thesis see Journal of the Military Service Institution, May, 1900.]

There are two questions to be answered: Is the present army ration, considered as a whole, adapted to the needs of the United States soldier serving in the Tropics? And if not, why not? These points having been determined, the remedy for existing defect can readily be deduced.

To the first question common experience returns an unqualified negative, best embodied in the words of the court of inquiry appointed to investigate the character of the food issued to troops during the war with Spain. This court reported as follows:

"As to the effects of the food supply, having regard to sufficiency and quality, it seems to be clearly established that the army ration as supplied, without modification, to the troops serving in the West Indies was by no means well adapted for use in a tropical climate. If this be true, the unfitness of the ration should have manifested itself by its failure to keep the troops who subsisted upon it in the best possible condition for service in hot climates. This, in the opinion of the court, is fully established in evidence."

The formulation of a reply to the second question involves, as a fundamental principle, a brief consideration of the physiology of hot climates, the determination of such alterations of body function as may result from the climatic and environmental conditions obtaining in the Tropics. It implies, also, the appreciation and comparison of the dietaries ordinarily used, under varying conditions of climate, by human beings of the military class in civil life. * * *

I. THE PHYSIOLOGY OF HOT CLIMATES.

The body temperature in the Tropics is appreciably elevated above the normal in new arrivals. * * * Maurel found an increase of body heat, in individuals lately arrived in the West Indies, ranging from 0.5° to 0.9° F.; and Jousset noted an average increase among the whites in Senegal of even greater degree. Fayrer states that among European residents in Bengal the bodily temperature is 0.41° F. higher than the average of healthy persons in England.

Internal heat in temperate climates is readily lost by radiation and contact with the external air, by the heating of inspired air, by exhalation of moisture in the breath, and by cutaneous evaporation. In the Tropics the difference between internal and external temperature is always very slight. * * * This produces an alteration in metabolism, and throws additional work on the kidneys and liver for an excess of nutritive material which, in temperate climates, would be oxidized in the production of heat, requires here to be merely excreted.

A loss of body weight occurs in hot countries, and the same is commonly observed in summer in the temperate zone. * * * Rattray concluded that this effect was due to the destructive influence of prolonged heat upon the cellular elements of the organism, together with imperfect oxygenation.

Adipose tissue, as a nonconductor, is undoubtedly potent in conserving internal heat and diminishing the effect of outside low temperature. In cold regions the proportion of fat in the organism is much greater than in warm climates, where the storing up of fats in human tissue is rare and even the artificial fattening of animals is accomplished with the greatest difficulty. In cold climates, on the contrary, considerable deposition of fatty material is the rule. * * * It is obvious that any excess of foods, which in temperate climates is largely converted into systemic fat, can not be devoted to this purpose in the Tropics with facility or advantage.

Tropical heat directly lowers the pulse rate, Rattray finding that the average rate of cardiac action in the Tropics was less by $2\frac{1}{2}$ beats per minute than in the temperate zone. * * * The low arterial tension always noted in hot climates is a direct result of loss of fluid through increased perspiration, favored by a relaxed state of the capillaries.

The first effect of tropical heat is to increase the respiratory capacity. This has been shown by Rattray by means of the spirometer, his observations being subsequently confirmed by others. * * *

Closely allied to the foregoing is the influence of tropical climate on the frequency of respiration. * * * Not only is the respiratory action markedly decreased in hot climates, but the greater quantity of air inspired in the Tropics does not make up for the diminished number of respirations in supplying the same amount of oxygen to the blood as in cold climates. * * * It is undoubtedly true that less oxygen is required in the high temperatures of the Tropics. * * * It is probable, however, that there is a somewhat increased absorption of oxygen in hot climates by the functionally excited skin. * * * The amount of sweat is greatly increased. Fonsagrives states that it is double the average amount secreted in Europe, often amounting to 4 or 5 pounds in the twenty-four hours. The amount of solids eliminated, however, is not proportionately increased. In addition, the secretion of serum is more abundant than in temperate climates. * * * As a result of increased perspiration there is a diminished excretion of urine, the reduction amounting to about one-third of the usual amount. * * * Such decrease in eliminatory function on the part of the kidneys, according to Moore, is followed by increased secretory action of the liver, whereby some effete matter is passed into the intestines with the bile. But increased liver action is accompanied by congestion, and congestion frequently by hepatic deposit and degeneration, with impairment of function.

Through the loss of fluid resulting from increased perspiration, there is a diminution in the secretion of saliva, mucous, gastric, and pancreatic juices and bile. As a consequence, also, there is dryness of the throat and fauces, and exaggeration of thirst, weakness of appetite, impaired digestion, gastric fullness after eating, and habitual constipation, these, according to Nielly, being the digestive phenomena constantly observed in the Tropics.

THE RATION FOR TROPICAL SERVICE.

Quantity. Prolonged heat exerts an unfavorable influence upon the digestive and assimilative functions. Hence work should not be imposed upon the alimentary tract in excess of its powers, and the diet should be restricted as compared with that of temperate climates, particularly since both diarrhea and dysentery are known to be favored by the presence of a large amount of undigested food in the intestines, while tropical anemia may be hastened by malassimilation resulting from overtaxation of the digestive powers. * * *

It is obvious that the consumption of any considerable amount of food for the production of internal heat is here as unnecessary as it is undesirable, while the nutritive needs of the organism require a smaller amount of material to repair the systemic losses resulting from the decreased oxidation and normally less active life of the Tropics. * * *

Protein and Nitrogen. in the Tropics purely for the purpose of systematic repair and not to be relied upon for the creation of any considerable proportion of the energy required by the organism. The ingestion of a certain amount of nitrogen is indisputably necessary to health, and with its deficiency the food ceases to be digested and a condition of inanition ensues. * * * Maurel, in his study of the natives of Guadeloupe and Guiana, found that their diet was almost wholly vegetable. From estimates, based on official figures, he showed that the inhabitants of Guadeloupe used a daily average of only twenty grams of meat per capita, and that only one-seventh of the vegetable food was imported in the form of the cereals of the Temperate Zone, the remaining six-sevenths being made up of yams, cassava, sweet potatoes, bananas, mangoes, and other fruits. * * * For natives of the Tropics it may, therefore, be accepted that the vegetable kingdom is almost wholly the source from which their food is drawn, and that but little of the vegetable material so used is imported in the form of cereals grown in cool climates. These facts are extremely important, for data supplied by the Department of Agriculture show that fruits and vegetables grown in the Tropics, at least as far as the Western Hemisphere is concerned, are much less rich in nitrogenous constituents than are the vegetable foods indigenous to the Temperate Zone. A comparison of the vegetables most commonly employed as staple foods in the Tropics and in cool climates shows the following differences:

Vegetable foods chiefly used in the Tropics.

	Water.	Protein.	Nitrogen.	Fat.	Carbo- hydrates.	Crude fiber.	Ash.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Cassava.....	61.3	0.64	0.102	0.17	36.5	0.88	0.51
Sweet potato (edible portion).....	69	1.8	.288	.7	26.1	1.3	1.1
Yam (edible portion).....	71.86	1	.16	.2	25.05	1.03	.86
Sugar cane.....	75.41	1.49	.23	.....	15.36	7.04	.69
Ripe bananas (edible portion).....	75.3	1.3	.208	.6	21	1	.8
Rice.....	12.3	8	1.28	.3	78.8	.2	.4

Average amount of nitrogen, per cent, 0.378.

Vegetable foods chiefly used in temperate climates.

	Water.	Protein.	Nitrogen.	Fat.	Carbo- hydrates.	Crude fiber.	Ash.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
White potato (edible portion).....	78.3	2.2	0.352	0.1	18	0.4	1
Wheat flour.....	12.8	10.8	1.552	1.1	74.6	.2	.5
Oatmeal.....	7.3	18.1	2.575	7.2	66.6	.9	1.9
Corn meal, granular.....	12.5	9.2	1.472	1.9	74.4	1	1
Barley flour.....	11.9	10.5	1.52	2.2	66.3	6.5	2.6
Rye.....	12.7	7.1	1.135	.9	78.5	.....	.8

Average amount of nitrogen, per cent, 1.434.

In these two groups of foodstuffs the great inferiority of the vegetable diet of the native of the Tropics as regards available nitrogen is at once apparent, the vegetables and cereals most commonly used as food in the Temperate Zone containing, in a given weight, almost exactly four times more nitrogenous material. Hence it is evident that the native diet in the Tropics is doubly inferior as regards nitrogen, meat being but little used, while the vegetable foods which replace the cereals of temperate climates contain but a small proportion of this element. * * *

The most striking effect of a highly nitrogenous diet is the increase in the nitrogenous metabolism of the body, and to a lesser degree of the non-nitrogenous also. This increased metabolism, through the amount of heat necessarily generated in the process, is clearly undesirable in warm climates. * * *

As to the liver, Rochard, Moore, Nielly, Rattray, Jousset, Maurel, Treille, and others have observed the directly injurious influence of a too nitrogenous and greasy diet in the production of disorders of this organ. * * *

From what has been said it is evident that the nitrogenous constituents of the United States army ration for troops serving in the Tropics may be safely and advantageously reduced. This is preferably accomplished at the expense of the meat component, which, besides protein, also contains a considerable proportion of fats. * * *

Fats.

In hot climates, where the human organism instinctively feels the needs of a loss of heat rather than its creation, the consumption of fat—a heating food of the highest degree—should be reduced to the minimum and largely replaced by that of sugars and starches. * * *

The distaste for fats in any considerable quantity, so early acquired in the Tropics and so noticeable during the summer weather of temperate climates, may be considered as evidence of an unconscious but instinctive recognition of the fact that a dietary of decreased caloric value is sufficient for the needs of the organism exposed to high temperatures. * * *

As compared with carbohydrates, fats, as a whole, are notably less digestible, and thus increase the evolution of heat through the more active chemical processes in the intestine. * * *

Natives of hot countries, when they can afford it, generally use a small amount of fats as such—as the clarified butter of India, the salt pork of tropical America, the olive oil of the Mediterranean districts, and the palm oil of equatorial Africa—and it is probable that a small quantity of this material, together with the protein and carbohydrates, assures a better use of the alimentary principles, and reduces to a minimum the quantity of each which should be ingested. While it may, then, be conceded that a certain quantity of fatty food is a desirable component of the diet in warm climates, it is certainly true that the amount so taken should be relatively small, and that the proportion commonly maintained in temperate climates is far in excess of the needs of the organism in the Tropics. * * * For the newcomer in the Tropics, habit as well as climate must be given consideration in the selection of diet, and it is therefore probable that no smaller proportion than that of 1 part of fats to 10 of carbohydrates would be to the best interests of the United States soldier.

Carbohydrates and carbon.

Carbohydrates are justly regarded as the chief source of carbon supplied to the organism in the production of energy. * * * Notter and Firth state that carbohydrates contain only 44 per cent of carbon, where fat contains 76.5 per cent, and even protein contains 53 per cent. Through the considerable quantity of protein which enters into the diet it is evident that the latter plays no small part in determining the carbon intake, as utilized for the creation of energy. * * *

It is * * * seen that 100 grams of protein, which have been suggested as furnishing about the amount of nitrogen desirable for the daily allowance of the United States soldier in the Tropics, contain as much nitrogen as 33.3 grams of urea; but the 100 grams of protein contain 46.4 grams more carbon than do the 100 grams of urea (53:6.66, or about the proportion of 8:1). Hence the daily allowance of protein for tropical service, in passing through the body and giving rise to urea, would leave behind 46.4 grams of carbon to combine with oxygen and undergo elimination as carbon dioxide. * * *

As regards fats, as stated above, carbon enters into their composition to the amount of 76.5 per cent; and it has been shown that for the Tropics the proportion of one part of fats to ten of carbohydrates in the dietary probably redounds to the best interests of the American soldier. * * * Carbohydratic material is capable of largely replacing fat in the dietary, diminishes nitrogenous metabolism, yields no end products to be excreted by the kidneys, is readily assimilated, and when in excess is largely stored up within the organism as glycogen and adipose tissue. The ingestion of carbohydrates, therefore, in quantities greater than are required for the immediate needs of the economy, while not without certain untoward effects upon the system, is undoubtedly far less inimical to health than where there is an excess of protein or fat in the dietary for the Tropics. * * *

From what has been advanced it is seen that the proportionate composition and fuel value of the proposed standard dietary for United States troops serving in the Tropics is as follows:

Protein.	Fats.	Carbohy- drates.	Nitrogen.	Total car- bon.	Fuel value.	Nutrient ratio, protein to en- ergy.
Grams. * 100	Grams. 65	Grams. 650	Grams. 16	Grams. 392	Calories. 3,491	Grams. 1.8

* * * The present United States army ration, as already stated, is made up of admirably selected articles in more than sufficient variety, and it is therefore not only wholly unnecessary but quite inadvisable to consider in this connection any nutritive substance outside those articles legally established as components of the food for the United States soldier. * * * The needs of the economy, as shown by appetite, are subject to wide variation, and hence it may be accepted that slight but carefully considered alteration in the constituents of the daily dietary, far from being detrimental, is productive of actual benefit. It is obvious, also, that the soldier will require less nutriment in garrison than is necessary to furnish the energy for the greater labors of campaign, and hence the several components of the ration should be so proportioned as to furnish dietaries properly varying in potential and nitrogenous value. It is believed that this is accomplished in the following modification of the dietaries already shown to be most commonly used by the United States soldier in temperate climates; the subjoined table showing the nutrient value of a proposed dietary for the Tropics containing the greatest amount of food material which might be drawn by the soldier:

TROPICAL DIETARY. I.

Articles.	Quantity.	Fats.	Carbo- hydrates.	Protein.	Nitrogen.	Fuel value.
	Ounces.	Grams.	Grams.	Grams.	Grams.	Calories.
Fresh beef	10	44.75	.....	41.68	6.67	590
Flour	18	5.60	380.46	55.08	7.90	1,850
Beans	2.4	1.22	40.18	15.16	2.42	240
Potatoes	16	.45	81.70	9.50	1.52	380
Dried fruit.....	3	1.63	33.80	1.77	.27	220
Sugar	3.5	.....	94.25	.....	.....	397
Total.....	52.9	53.55	630.39	123.19	18.78	3,677

Total carbon, 395.14 grams. Nitrogen to carbon, 1:19.6.

The following table shows a proposed dietary for the Tropics, especially applied to field service, in which the fatty constituents attain their maximum and the caloric energy is high:

TROPICAL DIETARY. II.

Articles.	Quantity.	Fats.	Carbo-hydrates.	Protein.	Nitrogen.	Fuel
	<i>Ounces.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calo.</i>
Bacon.....	6	105.06	.....	15.64	2.49	
Hard bread.....	18	6.63	371.81	73.12	11.74	
Beans.....	2.4	1.22	40.18	15.16	2.42	
Dried fruit.....	3	1.53	50.70	1.77	.27	
Sugar.....	3.5	.....	94.25	.....	.....
Total.....	32.9	114.44	566.94	106.69	16.92	3

Total carbon, 328.76 grams. Nitrogen to carbon, 1:23.

The nutrient value of the ordinary dietary as proposed for garrison duty in the Tropics is as follows:

TROPICAL DIETARY. III.

Articles.	Quantity.	Fats.	Carbo-hydrates.	Protein.	Nitrogen.	Fuel value
	<i>Ounces.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Fresh beef.....	10	44.75	.....	41.68	6.67	56
Soft bread.....	20	6.80	299.20	53.83	8.61	1,50
Potatoes and onions.....	16	.72	73.09	8.60	1.40	34
Dried fruit.....	3	1.53	50.70	1.77	.27	23
Sugar.....	3.5	.....	94.25	.....	.....	39
Total.....	52.5	53.80	517.24	106.88	16.96	3,063

Total carbon, 328.76 grams. Nitrogen to carbon, 1:18.

For the following combination the several articles of the ration most closely approaching in character to the food materials used by natives of the Tropics—proportioned in quantity according to the standard proposed for hot climates—have been selected:

TROPICAL DIETARY. IV.

Articles.	Quantity.	Fats.	Carbo-hydrates.	Protein.	Nitrogen.	Fuel value.
	<i>Ounces.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Fresh fish (cod) whole.....	14	0.79	.....	31.73	5.07	120
Soft bread.....	20	6.80	299.20	53.83	8.61	1,506
Rice.....	4	.45	88.87	8.75	1.40	407
Potatoes and tomatoes.....	16	.54	65.80	8.17	1.36	297
Dried fruit.....	3	1.53	50.70	1.77	.27	220
Sugar.....	3.5	.....	94.25	.....	.....	841
Total.....	64.5	10.11	598.82	104.25	16.71	2,947

Total carbon, 327.50 grams. Nitrogen to carbon, 1:19.6.

On averaging these four dietaries, as furnished by the ration proposed for the Tropics, the mean nutrient composition is seen to be as follows:

Dietary.	Quantity.	Fats.	Carbo-hydrates.	Protein.	Nitrogen.	Fuel value.
	<i>Ounces.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
No. I.....	52.9	53.56	630.39	123.19	18.78	3,677
No. II.....	32.9	114.44	556.94	106.69	16.92	3,825
No. III.....	52.5	53.80	517.24	106.88	16.96	3,063
No. IV.....	64.5	10.11	598.82	104.25	16.71	2,947
Average.....	50.7	57.97	560.85	109.06	17.84	3,376

Total carbon, 350.00 grams. Nitrogen to carbon, 1:20.

It will be observed that while the above dietaries differ considerably among themselves, yet when averaged together in equal proportions they do not greatly vary from the nutritive standard for the tropics already proposed, and this is an additional reason why a selection of the same articles of the ration should not be made from day to day. It is seen that the above average dietary, as compared with the nutrient standard, is still slightly deficient in fats and fuel and a trifle in excess as regards protein. These defects, if they may be considered as such, are, however, readily corrected by a rotation of dietaries, in which Dietary II is used twice where dietaries I, III, and IV are each employed but once. The results of this change are as follows:

Dietary.	Quantity.	Fats.	Carbo- hydrates.	Protein.	Nitrogen.	Fuel value.
	Ounces.	Grams.	Grams.	Grams.	Grams.	Calories.
No. I	52.9	53.55	630.39	123.19	18.78	3,677
No. II	32.9	114.44	556.94	106.69	16.92	3,825
No. II	32.9	114.44	556.94	106.69	16.92	3,825
No. III	52.5	53.80	517.24	106.88	16.95	3,063
No. IV	64.5	10.11	598.92	104.25	16.71	2,947
Average	47.1	69.43	572.06	106.88	17.26	3,465

Total carbon, 363.33 grams. Nitrogen to carbon, 1:21.

From the above tables it is evident that such changes as are advisable in the adaptation of the United States army ration to tropical conditions are chiefly in the line of a reduction in quantity of the foods at present provided by a too generous Government. It is true that the sugars and starches should be slightly augmented, but their increase is small when compared with the considerable reduction of nitrogenous and fatty material which is proposed. Many of the components of the present ration, as is seen by the following table, require no change in the consideration of the tropical dietary, being not only admirably selected but also properly proportioned.

The ideal ration for an army of United States soldiers on duty in the tropics is therefore suggested as being of the following composition:

Articles.	Quantity per ration.	Protein.	Nitrogen.	Fats.	Carbo- hydrates.	Fuel value.
	Ounces.	Grams.	Grams.	Grams.	Grams.	Calories.
Fresh beef (quarters)	10	41.68	6.67	44.75	.....	590
Or fresh mutton	10	46.20	7.35	62.90	.....	720
Or pork	6	27.54	4.40	112.54	.....	1,093
Or bacon	6	15.64	2.49	106.06	.....	1,042
Or salt beef	10	40.27	6.44	64.68	.....	688
Or dried fish (cod)	10	45.37	7.26	1.13	.....	197
Or fresh fish, average (whole)	14	31.78	5.07	.79	.....	120
Flour	18	55.08	7.90	5.60	380.46	1,850
Or soft bread	20	53.88	8.61	6.80	299.20	1,506
Or hard bread	18	73.12	11.74	6.63	371.81	1,926
Or corn meal	20	50.40	7.99	12.40	425.80	1,966
Beans	2.4	15.16	2.42	1.22	40.18	240
Or peas	2.4	16.38	2.62	.75	41.80	246
Or rice	4	8.75	1.40	.45	88.87	407
Or hominy	4	9.20	1.47	.67	88.75	430
Potatoes	16	9.50	1.52	.45	81.70	380
Or potatoes 80 per cent and on- ions 20 per cent	16	8.60	1.40	.72	73.09	340
Or potatoes 70 per cent and can- ned tomatoes 30 per cent	16	8.17	1.36	.54	65.80	297
Dried fruit (average)	3	1.77	.27	1.58	35.80	220
Sugar	3.5	.....	.....	.....	94.25	397
Or molasses	1 gill.	.....	.....	.....	56.06	269
Or cane sirup	1 gill.	.....	.....	.....	56.25	269
Coffee, green	1½	.....	.....	.....	.....	.....
Or coffee, roasted	1½	.....	.....	.....	.....	.....
Or tea, green or black	1½	.....	.....	.....	.....	.....
Vinegar	¾ gill.	.....	.....	.....	.....	.....
Salt	1½ ounce.	.....	.....	.....	.....	.....
Pepper, black	1½ ounce.	.....	.....	.....	.....	.....
Soap	1½	.....	.....	.....	.....	.....
Candles	1½	.....	.....	.....	.....	.....

2. EXTRACTS FROM REPORT OF COL. CHARLES A. WOODRUFF, ASSISTANT COMMISSARY GENERAL OF SUBSISTENCE, U. S. A.

[NOTE.—For complete thesis, see Journal of the Military Service Institution, July, 1900.]

The first legislation fixing the components of the army ration was in 1775. Since that time the Congress has legislated directly upon the subject on ten occasions, and has also authorized the President to make alterations in the component parts of the ration, and under this authority various changes and additions * * * have been made; * * * based upon an experience gained in three wars, many Indian campaigns, and a century of garrison life. * * *

Table A shows the first ration established for the United States Army in 1790, and also the present ration with all substitutive issues and savings, the evolution of a century's study and experience. An examination of this table will show that there has been an addition in quantity of about 75 per cent and 300 per cent in variety * * * From this ration alone at least half a dozen dietaries may be evolved with varying proportions in the relative amounts of proteids, hydrocarbons, and carbohydrates, and in each a sufficiency of nitrogen and carbon to sustain the system under the heaviest strain of work. * * *

The annual death rate from disease among our soldiers in the Philippines was 17.20 per thousand. When it is considered that many of these were new troops, most of them were sent to the tropics in midsummer, were confined to a limited area after a long sea voyage, were subjected to severe toil and great mental strain incidental to the critical situation, and then made a hard campaign in the rainy season, the smallness of this death rate is wonderful, and indicates that, from a hygienic standpoint, the ration was almost perfect, and the work performed by our soldiers shows that its potential energy left nothing to be desired, and it certainly gave satisfaction to the consumers and to those most directly interested in the results that followed its use. * * *

When the Subsistence and Medical departments were confronted at Montauk Point with an invalided army they quickly rose to the emergency and cared for it as no other army was ever cared for in the world's history. * * *

No intelligent person will claim that troops in the tropics need a pound and a quarter of fresh beef or three-fourths of a pound of bacon every day, but there are times when they need every ounce of one or the other, and when they do not they can get something else—malted milk, if they desire it; and here is the grand mistake of those who mean well, but neither comprehend the flexibility of the ration nor that the established ration has two distinct functions, one to supply the necessary food on all occasions, the other to furnish as nearly as possible a fixed standard of value for purchases outside the ration.

TABLE A.

Articles.	Quantities per ration.		Quantities per 100 rations.		Remarks.
	Ounces.	Gills.	Pounds.	Gallons.	
THE ARMY RATION, 1790.					
Beef	16	.....	100	.....	Or the value thereof.
Or pork	12	.....	75	.....
Bread or flour	16	.....	100	.....
Rum, brandy, or whiskey .....	.....	1	.....	1 1/4	
Salt .....	.....	1/2	.....	1/2	
Vinegar .....	.....	1/2	.....	1/2	
Soap	1/2	.....	2	.....
Candles	1/2	.....	1	.....
THE ARMY RATION, 1900.					
Meat components:					
Fresh beef, or fresh mutton, when the cost does not exceed that of beef	20	.....	125	.....	Beef may be reduced and the equal money value in ham or other articles for sales issued. Par. 4, G. O., 78, H. Q. A., 1899.
Or pork or bacon	12	.....	75	.....	Savings allowed.
Or salt beef	22	.....	137 1/2	.....	Do.
Or dried fish	14	.....	87 1/2	.....	Savings not allowed.
Or pickled fish, or fresh fish	18	.....	112 1/2	.....	Do.
Or canned salmon	16	.....	100	.....	Savings allowed.
Bread components:					
Flour or soft bread	18	.....	112 1/2	.....	Savings of flour by troops in the field will be credited to the company fund.

TABLE A—Continued.

Articles.	Quantities per ration.		Quantities per 100 rations.		Remarks.
	Ounces.	Gills.	Pounds.	Gallons.	
THE ARMY RATION, 1900—Continued.					
Bread components—Continued.					
Or hard bread	16	.....	100	.....	Savings allowed.
Or corn meal	20	.....	125	.....	Do.
Baking powder for troops in the field when necessary to enable them to bake their own bread.	1½	.....	4	.....	Savings not allowed.
Vegetable components:					
Beans or peas	2½	.....	15	.....	Savings allowed.
Or rice or hominy	1½	.....	10	.....	Do.
Potatoes	16	.....	100	.....	Savings not allowed, but commutation allowed when deemed advisable by chief commissaries.
Or potatoes 12½ ounces and onions 3½ ounces, or potatoes 11½ ounces and canned tomatoes 4½ ounces, or other fresh vegetables not canned when they can be obtained in the vicinity of the post or transported in a wholesome condition from a distance.	16	.....	100	.....
Fruit components:					
Dried fruits: apples, peaches, prunes, etc.	2	.....	12½	.....	Savings not allowed.
Coffee and sugar components:					
Coffee, green	1½	.....	10	.....	Do.
Or roasted coffee	1½	.....	8	.....
Or tea, green or black	2½	.....	2	.....
Sugar	2½	.....	15	.....
Or molasses or cane sirup .....	.....	1½	.....	2	
Seasoning components:					
Vinegar .....	.....	1½	.....	1	Savings allowed.
Salt	1½	.....	4	.....
Pepper, black	2½	.....	1	.....
Soap and candle components:					
Soap	1½	.....	4	.....	Do.
Candles, when illuminating oil is not furnished by the quartermaster's department.	1½	.....	14	.....

N. B.—The proceeds of savings are applied to provide additional articles of diet.

TABLE B.—The ideal ration for an army in the Tropics.

Articles.	Quantities per ration.		Quantities per 100 rations.		Remarks.
	Ounces.	Gills.	Pounds.	Gallons.	
Meat components:					
Fresh beef.....	20	.....	125	.....	Beef may be reduced and the equal money value in any articles for sales issued.
Or fresh mutton, when the cost does not exceed that of beef.	20	.....	125	.....
Or canned fresh beef or mutton.	16	.....	100	.....	No savings allowed.
Or pork	12	.....	75	.....	Savings allowed.
Or bacon, or ham, or brawn ..	12	.....	75	.....	Do.
Or salt beef	22	.....	137½	.....	Do.
Or dried fish	14	.....	87½	.....	Savings not allowed.
Or pickled fish	18	.....	112½	.....	Do.
Or fresh fish	18	.....	112½	.....	Do.
Or canned salmon	16	.....	100	.....	Savings allowed.
Bread components:					
Flour.....	18	.....	112½	.....	Savings of flour by troops in the field will be credited to the company fund.
Or soft bread	18	.....	112½	.....

TABLE B.—*The ideal ration for an army in the Tropics—Continued.*

Articles.	Quantities per ration.		Quantities per ration.		Remarks.
	Ounces.	Gills.	Pounds.	Gallons.	
Bread components—Continued.					
Or hard bread	16	.....	100	.....	Savings allowed.
Or corn meal	20	.....	125	.....	Do.
Baking powder for troops in the field when necessary, to enable them to make their own bread.	½	.....	4	.....	Savings not allowed.
Vegetable components:					
Beans, or oatmeal, or rice	2½	.....	15	.....	Savings allowed, except on rice.
Or peas or hominy	2½	.....	15	.....	Savings allowed.
Potatoes	16	.....	100	.....	Savings not allowed, but commutation allowed when deemed advisable by chief commissaries.
Or potatoes 12½ ounces and onions 3½ ounces.	16	.....	100	.....
Or potatoes 11½ ounces and canned tomatoes ½ ounces; or ½ ounces of other fresh vegetables not canned when they can be obtained in the vicinity of the post or transported in a wholesome condition from a distance.	16	.....	100	.....
Fruit components:					
Dried fruits	2	.....	12½	.....	Savings not allowed.
Coffee and sugar components:					
Coffee, green	1½	.....	10	.....	Savings allowed.
Or roasted coffee	1½	.....	8	.....	Do.
Or tea, green or black	1½	.....	2	.....	Do.
Sugar	1	.....	25	.....	Savings not allowed.
Or molasses, or cane syrup .....	.....	½	.....	3	Do.
Seasoning components:					
Vinegar .....	.....	½	.....	1	Savings allowed.
Or sauerkraut .....	.....	1½	.....	4	Savings not allowed.
Salt	½	.....	4	.....	Savings allowed.
Pepper, black	½	.....	½	.....	Do.
Or curry	½	.....	½	.....	Do.
Soap and candle components:					
Soap	½	.....	4	.....	Do.
Candles, when illuminating oil is not furnished by the Quartermaster's Department.	½	.....	1½	.....	Do.
Comfort component:					
Tobacco	½	.....	3½	.....	Savings not allowed.

N. B.—The proceeds of savings are applied to provide additional articles of diet.*

NOTE.—Since the above table was prepared, the issue of toilet paper at military posts and camps and of ice in the colonies has been authorized.

The British have been in India for two hundred years and their troops have operated there extensively for one hundred and fifty years, and while they vary the Sepoy's ration to suit the various races, their own, after a century and a half of experience, where rice is cheap and meat dear, is:

	Ounces.
Meat	16
Bread	16
Potatoes	16
Rice	4
Sugar	2.5
Tea .....	.71
Salt .....	.68

* * * * *

During the civil war the Southern armies subsisted mainly on corn, with "meat" (bacon) when available. The Federal armies were regularly supplied with "hardtack" (wheat bread) and beef, or bacon, the latter being a food approved by both armies.

The ration must * * * conform to the needs of the individual soldier as well as the exigencies of the service, and must contain all the alimentary principles in an adaptable form (i. e., 1, carbohydrates; 2, fats; 3, protein, and the salts), carbohy-

lrates and protein being principal, and in the proportion of one part of the latter to four or five of the former. Fresh vegetables must be an occasional component to avoid disease and disability of the troops.

Food value:

1. Fresh beef—mainly protein + fat and salts.
2. Bacon—mainly fat + protein and salts.
3. Flour—mainly carbohydrates + fat, protein, and salts.
4. Corn meal—mainly carbohydrates + fat, protein, and salts.
5. Beans—protein, carbohydrates + fat and salts.
6. Rice—mainly carbohydrates.

Corn meal contains all the alimentary principles in better proportions than any other article.

To be on the part of the soldier:

1. The accustomed diet of the soldier in great part. (Adaptability.)
2. Agreeable to the taste. (Palatability.)
3. Portable and light in weight (on the person of the soldier). (Portability.)
4. Of easy and quick preparation. (Simplicity.)
5. Adapting itself to a change of dietary. (Flexibility.)

To be on the part of the Government:

1. Available in quantity.
2. Potential strength, energy for war purposes.
3. Suitable to the circumstances, hygienic.
4. Satisfactory to the consumer.
5. Economy of cost.
6. Conveniently procured, handled, packed, and delivered in good condition.
7. Easy preservation (least waste and deterioration).

* * * * *

To meet the individual characteristics of our soldier, in his origin the most cosmopolitan found in any army, as well as to provide a change of diet, our ration was made a flexible one, and under the fostering care of company commanders who take a pride in their kitchens one may find as liberal and diverse bills of fare as in the homes of an equal number of comfortable mechanics. There is no other army in the world where, from the commissariat alone, this can be approached.

APPENDIX K.

MAXIMUM, MINIMUM, AND AVERAGE NUMBER OF DAYS ELAPSING FROM DATE OF INSPECTION TO RECEIPT OF REPORT IN THE INSPECTOR-GENERAL'S OFFICE.

A. *Military posts—Departmental system of inspection, four years, 1885-1889.*

Department.	Reports examined for the 4 years.		1885-86.			1886-87.			1887-88.			1888-89.			For 4 years.		
	Total.	Average per year.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Greatest average.
Arizona.....	58	13.2	136	103	122.9	220	76	170.9	135	44	111.9	160	79	105.2	220	44	170.9
Atlantic (Division of).....	88	22	62	3	26.1	47	5	11.3	12	6	8.6	173	6	32.6	173	3	32.6
California.....	34	8.5	44	15	22.3	67	12	32.4	42	13	25	123	22	44	123	12	44
Columbia.....	30	7.5	121	67	100.2	94	26	63.6	69	20	41	87	25	61.6	121	20	100.2
Dakota.....	80	20	179	33	61.3	109	26	59.3	76	26	33.8	140	31	84.4	179	26	98.4
Missouri.....	53	13.2	99	26	50.3	72	20	55.9	46	23	33.8	110	31	67	110	20	100.2
Platte.....	50	12.5	116	73	96.7	161	27	109	42	18	27.4	151	11	40.8	161	11	109
Texas.....	55	13.7	29	16	27.5	61	21	31.9	139	22	47.6	79	41	62.9	139	16	62.9
Average.....	448	110.6	179	3	53.8	220	5	65.7	139	42.2	111.9	173	6	106.2	220	8	170.9
Highest.....					122.9			170.9			8.6			106.2			170.9
Lowest.....			3		22.3			11.3	6					32.6			8.6
α Total.																	

α Total.

B.—Military posts—Departmental system of inspection, six years, 1889–1895.

Department.	Reports examined for the 6 years.		1889-90.			1890-91.			1891-92.			1892-93.			1893-94.			1894-95.			For 6 years.			
	Total.	Average per year.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Greatest average.	Least average.			
Arizona ^a	63	10.5	158	47	91.9	160	33	102.8	43	14	27.6	38	11	26	29	14	22.5	27	12	17.7	160	11	102.8	22.5
California	42	7	123	13	64.1	56	22	37.3	64	17	31.5	60	26	48.9	26	17	21	27	12	17.7	123	13	54.1	17.7
Columbia	47	7.8	92	30	73.1	68	30	44	56	18	37.4	60	25	48.9	25	13	19	96	14	19	96	14	73.1	19
Dakota	68	11.3	140	46	96.9	43	21	30.2	29	7	15.5	23	7	20.2	6	9.6	6	44	11	23.4	140	7	96.9	9.6
East ^b	124	20.7	71	6	15.6	43	21	30.2	35	12	22.6	42	7	20.2	51	6	27.3	43	11	23.7	71	6	30.2	15.6
Missouri	62	10.3	119	9	59	44	4	17.3	53	8	29.2	34	14	26.0	82	7	20.4	62	13	27.1	119	4	59	17.3
Plate	58	9.7	133	24	65.5	36	21	27.8	38	12	20.6	53	15	30.5	75	19	35.4	50	19	36.8	133	12	65.5	20.6
Texas	47	7.8	176	14	63.6	56	5	21.2	24	10	16.5	43	12	20.8	42	15	30.8	176	5	63.6	176	5	63.6	16.5
Average.....	c511	86.1	.....	.....	61	160	46.3	102.8	64	23.8	37.4	60	7	12.4	75	6	23.3	96	11	17.7	176	4	102.8	9.6
Highest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

^a Also known as the Department of the Colorado.

^b Also known as the Division of the Atlantic.

^c Total.

a Also known as the Department of the Colorado.

b Also known as the Division of the Atlantic.

C.—Military posts—System of inspection districts, three years, 1895–1898.

District.	Reports examined for the 3 years.		1895–96.			1896–97.			1897–98.			For 3 years.		
			Maximum.			Minimum.			Maximum.			Minimum.		
	Total.	Average per year.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.
North Atlantic	44	14.7	49	19	30	20	11	15.1	87	6	17.1	87	6	17.1
South Atlantic	30	10.7	59	14	27.1	33	16	18.2	83	8	17.8	59	6	17.8
North	47	12.7	64	15	29.9	74	15	33.7	64	15	40.1	74	14	40.1
Middle	21	42	23.6	12	23.6	42	21	23.6	42	21	23.6	42	12	23.6
Southern	39	13	51	14	26.7	113	26	60.7	78	11	33.8	113	8	33.8
Pacific	41	13.7	86	16	36.6	43	17	26.5	106	11	32.8	106	11	32.8
Average	a222	74	85	12	23.6	113	6	15.1	106	6	17.1	113	6	17.1
Highest	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

a Total.

D.—Military post—Departmental system of inspection, two years, 1898-1900.

Department.	Reports examined for the 2 years.				1898-99.				1899-1900.				For 2 years.			
	Total.		Average per year.		Maxi. num.		Mini. num.		Aver. age.		Maxi. num.		Mini. num.		Greatest average.	
	Total.		Average per year.		Maxi. num.		Mini. num.		Aver. age.		Maxi. num.		Mini. num.		Least average.	
California.....	5	5	2.5	5	57	29	42	115	39	77.2	115	29	77.2	42	42	42
Colorado.....	28	12.5	12.5	12.5	96	27	47.4	90	16	44.6	96	16	47.4	44.6	44.6	44.6
Columbia.....	18	8	8	8	4	38	69	122	98	110.6	122	98	110.6	110.6	110.6	110.6
Dakota.....	16	8	8	8	8	68	83.9	152	51	79.7	152	51	83.9	79.7	79.7	79.7
East.....	70	36	36	36	8	8	18.2	136	11	23.7	136	8	23.7	18.2	18.2	18.2
Gulf.....	9	4.5	4.5	4.5	146	22	86.8	50	27	39.6	146	22	86.8	39.6	39.6	39.6
Lakes.....	10	5	5	5	109	24	60	71	28	45.9	109	24	60	45.9	45.9	45.9
Missouri.....	15	7.5	7.5	7.5	56	27	38.2	49	29	39	56	27	38.2	39	39	39
Texas.....	17	8.5	8.5	8.5	483	55	294.5	483	55	294.5	483	55	294.5	294.5	294.5	294.5
Major Crozier's reports.....	14	7	7	7	483	55	294.5	483	55	294.5	483	55	294.5	294.5	294.5	294.5
Average.....	a 181	90.5	90.5	90.5	b 146	b 44.6	b 18.2	b 152	11	29.7	b 152	b 110.6	b 110.6	b 110.6	b 110.6	b 110.6
Highest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

a Total.

b Major Crozier's reports not included.

E.—Depots, staff posts, etc., eleven years, 1889-1900.

Depots, etc.	Reports examined for the 11 years.			Fiscal year 1889-90.			Fiscal year 1890-91.			Fiscal year 1891-92.			Fiscal year 1892-93.			Fiscal year 1893-94.			Fiscal year 1894-95.		
	Total.	Aver- age per year.	Maxi- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.		
Quartermaster depots.....	68	6.2	7	6	19	2	9.4	21	1	9	13	6	8.8	28	1	15.4	23	1	11.6	11.6	
Commissary depots.....	81	7.4			14	1	7.7	22	4	9.8	13	1	7.4	26	3	9.4	16	1	8.8	8.8	
Medical supply depots.....	38	8.6			10	3	6.5	8	4	6	9	7	8	16	5	11.3	20	7	12.2	12.2	
Armories, arsenals, etc.....	131	11.9	31	13.4	38	4	13.8	21	3	8.9	24	4	9.5	33	3	13.8	14	3	8.5	8.5	
Recruiting rendezvous.....	232	21.1	69	10.8	24	3	10.8	27	1	6.9	25	1	8.4	19	1	8.6	80	5	11.8	11.8	
National cemeteries.....	332	30.2			19	1	8	48	1	13.2	22	1	8	20	1	7.2	19	4	11.9	11.9	
Average.....	a 892	80.2								10.5			8.3			9.2			10.7	10.7	
Highest.....			31	13.4	38	1	6.5	48	1	13.2	25	1	9.5	33	1	15.4	80		12.2	12.2	
Lowest.....				6						6			7.4			7.2			8.5	8.5	

a Total.

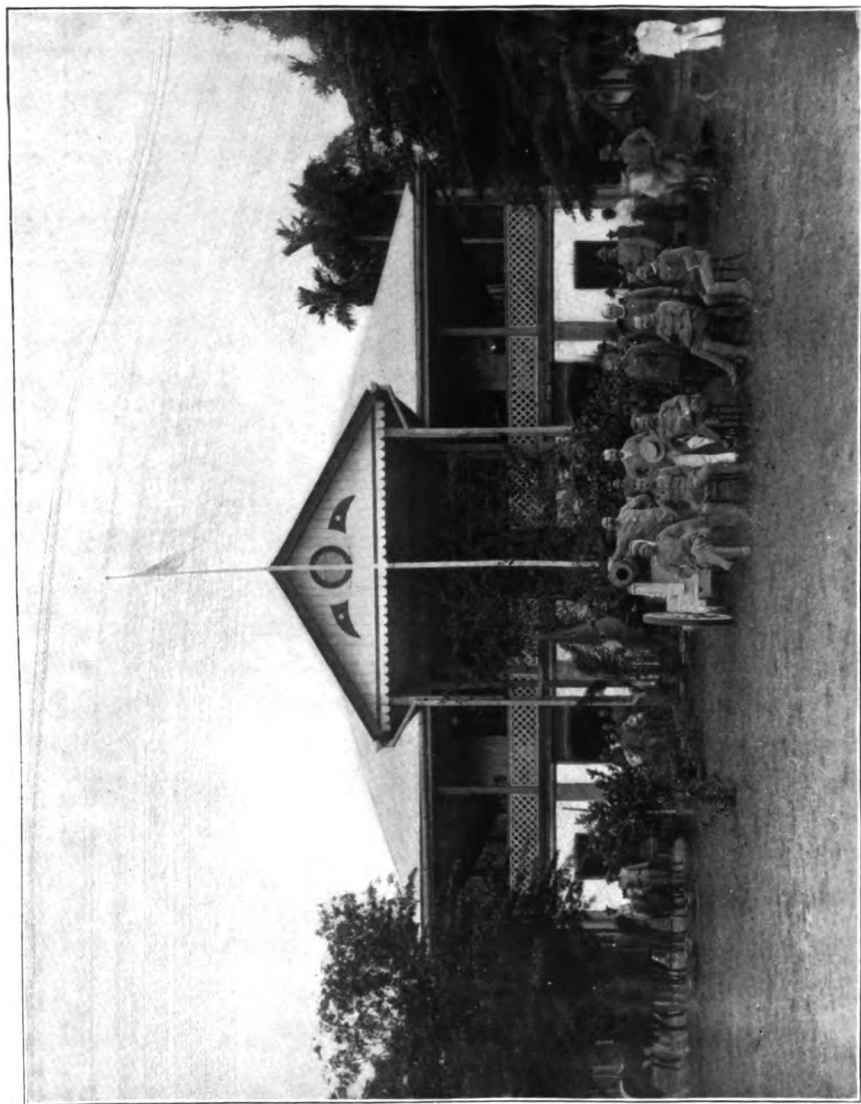
E.—Depots, staff posts, etc., eleven years, 1889-1900—Continued.

Depots, etc.	1895-96.			1896-97.			1897-98.			1898-99.			1899-1900.			For 11 years.		
	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.
Quartermasters' d-pots.....	24	3	11.4	22	5	12.9	18	6	11.6	25	3	9.3	16	7	10	28	1	15.4
Commissary depots.....	10	5	7.6	22	2	11.5	18	3	10.8	17	4	9.4	15	4	9.2	26	1	11.5
Medical-supply depots.....	15	6	9.8	14	5	8.2	16	9	12.3	11	8	9.5	21	8	13	21	3	12.3
Armories, arsenals, etc.....	23	3	11.8	19	4	9.6	44	5	17	49	6	16	45	2	16.4	49	2	17
Recruiting rendezvous.....	29	4	16.8	42	1	10	45	5	13.7	23	4	11.3	26	3	12.8	46	1	13.7
National cemeteries.....						11.2	41	2	18.4	41	2	11.6	28	4	11.7	48	1	18.4
Average.....			11.9			10.7			14.9			11.6			12.5			
Highest.....	29		16.8	46		12.9	45		18.4	49		16	45		16.4	49		18.4
Lowest.....	3		7.6		1	9.6		2	10.8		2	9.3		2	9.2		1	6

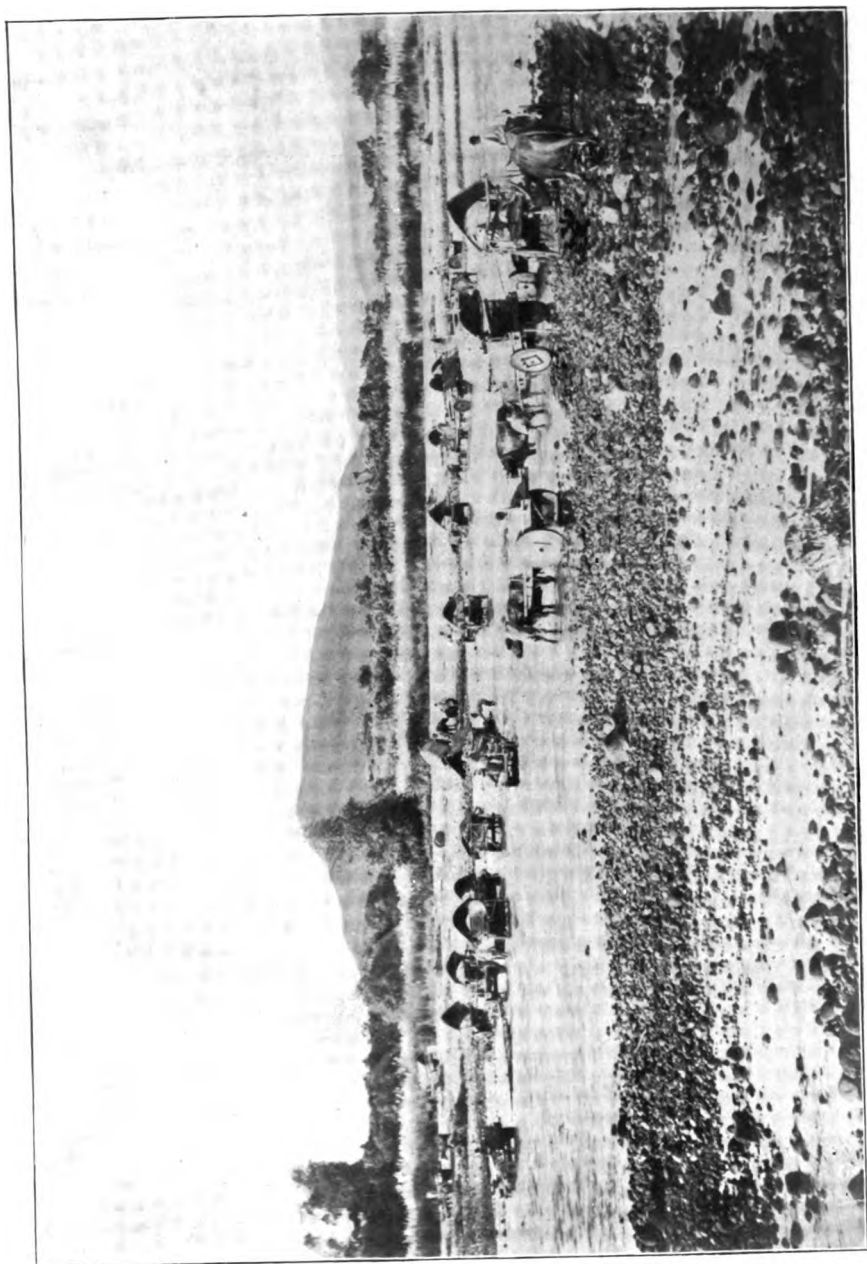
F.—Inspections of property and disbursements.

Department.	Property.						Disbursements.					
	1898-99.			1899-1900.			For 2 years.			1899-1900.		
	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.
Alaska.....												
California.....	58	49	5	77	133	20	58	77	20	68	165	5
Colorado.....	58	25	6	72	132	9	58	133	6	75	165	8
Columbia.....	38	70	7	46	67	10	38	70	7	62	58	4
Cuba.....				115	115	5		115	5	182	247	6
Dakota.....	58	81	6	77	115	6	58	115	6	182	247	8
East.....	58	49	2	70	103	3	58	103	2	182	247	2
Lake.....	58	37	3	72	103	3	58	103	3	182	247	2
Missouri.....	58	47	3	72	103	3	58	103	3	182	247	2
Philippines.....	58	47	3	72	103	3	58	103	3	182	247	2
Porto Rico.....	58	47	3	72	103	3	58	103	3	182	247	2
Texas.....	58	56	6	72	103	6	58	103	6	182	247	4
Average.....	58	44	5	72	103	5	58	103	5	182	247	4
Highest.....	58	56	6	72	103	6	58	103	6	182	247	4
Lowest.....	5	5	5	5	5	5	5	5	5	5	5	5

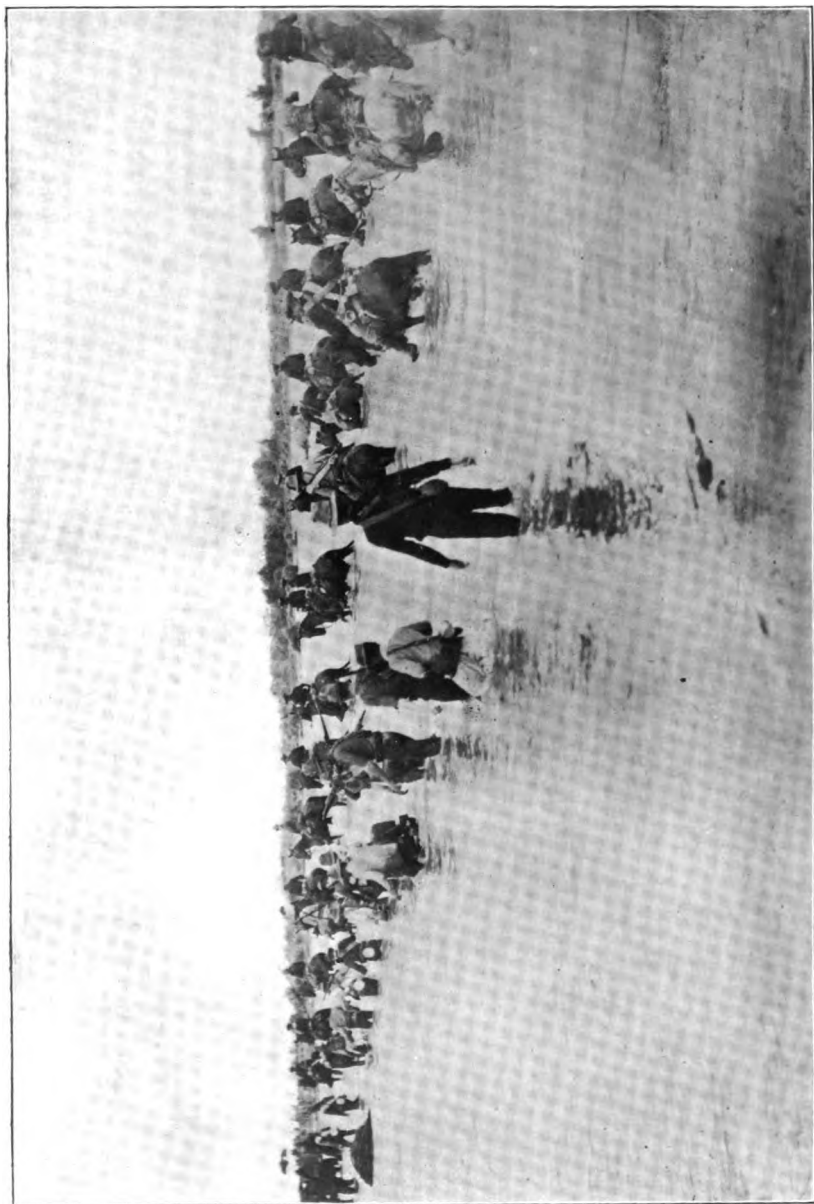
a Total.



HEADQUARTERS SECOND DIVISION, EIGHTH ARMY CORPS, FEBRUARY, 1900.



SUPPLY TRAIN FORDING PARAO RIVER, NEAR BAMBAN.



FORDING TARLAC RIVER, NOVEMBER 17, 1899 (TROOP E, FOURTH U. S. CAVALRY).

APPENDIX K.

MAXIMUM, MINIMUM, AND AVERAGE NUMBER OF DAYS ELAPSING FROM DATE OF INSPECTION TO RECEIPT OF REPORT IN THE INSPECTOR-GENERAL'S OFFICE.

A. *Military posts—Departmental system of inspection, four years, 1886-1889.*

Department.	Reports examined for the 4 years.		1885-86.			1886-87.			1887-88.			1888-89.			For 4 years.			
	Total.	Average per year.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Greatest average.	Least average.
Arizona.....	53	13.2	136	103	122.9	220	76	170.9	135	44	111.9	150	79	105.2	220	44	170.9	105.2
Atlantic (Division of).....	88	22	62	8	26.1	47	15	11.3	12	5	8.6	173	6	32.5	173	3	32.5	8.6
California.....	34	8.5	44	15	22.3	57	12	32.4	42	13	25	123	22	44	123	12	44	22.3
Columbia.....	30	7.6	121	67	100.2	84	84	63.6	69	20	41	87	25	61.5	121	20	100.2	41
Dakota.....	80	20	179	33	61.3	109	26	59.3	76	26	56.1	140	46	98.4	179	26	98.4	56.1
Missouri.....	54	13.2	99	26	50.3	72	20	55.9	46	23	33.3	110	31	67	110	20	67	33.1
Nebraska.....	50	12.5	116	73	96.7	161	27	109	42	18	27.4	151	11	40.3	161	11	109	27.4
Plateau.....	55	13.7	29	16	27.5	61	21	31.9	139	22	47.6	79	41	62.9	139	16	62.9	27.5
Texas.....																		
Average.....	443	110.6	179	53.3	122.9	220	76	170.9	139	44	111.9	173	79	105.2	220	44	170.9	105.2
Highest.....																		
Lowest.....																		
a Total.																		

B.—Military posts—Departmental system of inspection, six years, 1889-1895.

Department.	Reports examined for the 6 years.		1889-90.			1890-91.			1891-92.			1892-93.			1893-94.			1894-95.			For 6 years.		
	Total.	Average per year.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Greatest average.	Least average.		
Arizona a.....	63	10.5	158	47	91.9	160	33	102.8	43	14	27.9	38	11	26	29	14	22.5	27	12	17.7	160		
California.....	42	7.8	123	13	34.1	56	22	37.3	64	17	31.5	60	26	48.9	26	17	21	96	19	48.4	123		
Columbia.....	47	11.3	92	30	73.1	68	30	44	56	18	27.5	63	26	48.9	26	13	19	44	11	23.4	92		
Dakota.....	68	11.3	140	46	96.9	29	6	15.6	29	7	15.5	23	7	20.2	42	12	12	51	6	23.7	140		
East b.....	124	20.7	71	6	15.6	43	21	30.2	35	12	22.2	42	7	20.2	42	12	9.6	44	11	23.4	71		
Missouri.....	62	10.3	119	9	59.2	44	4	17.8	53	8	29.2	34	14	28.0	32	7	20.4	62	13	27.1	119		
Platte.....	58	9.7	133	24	65.5	36	21	27.8	38	12	20.6	53	15	30.5	75	19	35.4	50	19	36.8	133		
Texas.....	47	7.8	176	14	63.5	56	5	21.2	24	10	16.5	43	12	20.8	42	15	30.8	42	15	36.8	176		
Average.....	511	85.1	176	61	96.9	160	4	45.3	64	7	23.8	60	7	24.6	75	6	23.3	96	11	28.6	176		
Highest.....				96.9		102.8			37.4		15.5			48.9			35.4			48.4			
Lowest.....				15.6		17.3			7		15.5			12.4			9.6			17.7			

a Also known as the Department of the Colorado.

b Also known as the Division of the Atlantic.

C.—Military posts—System of inspection districts, three years, 1895-1898.

District.	Reports examined for the 3 years.		1895-96.			1896-97.			1897-98.			For 3 years.		
	Total.	Average per year.	Maximum.			Minimum.			Maximum.			Minimum.		
			Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.
North Atlantic.....	44	14.7	49	19	30	15.1	20	11	6	87	17.1	6	87	6
South Atlantic.....	30	10.	59	14	27.1	18.2	33	6	8	33	17.8	59	6	27.1
Northern.....	47	15.7	64	15	28.9	40.1	74	14	15	66	40.1	74	14	40.1
Middle.....	21	7	42	12	23.6	21	113	29	21	78	27.8	42	12	27.8
Southern.....	39	13	51	14	26.7	26.5	48	17	8	106	53.8	113	8	60.7
Pacific.....	41	13.7	85	16	36.6	31.9	113	6	11	106	53.8	113	8	60.7
Average.....	a 222	74	85	12	23.6	60.7	113	6	6	106	53.8	113	8	60.7
Highest.....			85		23.6	60.7			6	106	53.8	113	8	60.7
Lowest.....						15.1			17.1		17.1			15.1

a Total.

D.—Military post—Departmental system of inspection, two years, 1898-1900.

Department.	Reports examined for the 2 years.				1898-99.				1899-1900.				For 2 years.			
	Total.	Average per year.	Maxi. num.	Mini. num.	Average.	Maxi. num.	Mini. num.	Average.	Maxi. num.	Mini. num.	Average.	Maxi. num.	Mini. num.	Greatest average.	Least average.	
California.....	5	2.5	57	29	42	115	39	77.2	115	29	77.2	115	29	77.2	42	
Colorado.....	26	12.5	96	27	47.4	80	16	44.6	96	16	44.6	96	16	47.4	44.6	
Columbia.....	28	12.5	96	27	47.4	80	16	44.6	96	16	44.6	96	16	47.4	44.6	
Dakota.....	16	8	68	33	38.2	136	11	23.7	136	11	23.7	136	11	38.2	11.6	
East.....	73	8	83	69	88.9	152	51	79.7	152	51	79.7	152	51	88.9	79.7	
Gulf.....	73	8	83	69	88.9	152	51	79.7	152	51	79.7	152	51	88.9	79.7	
Lake.....	10	4.5	146	22	86.8	50	27	39.6	146	22	39.6	146	22	86.8	18.2	
Missouri.....	10	5	109	24	60	71	23	45.9	109	24	45.9	109	24	60	39.2	
Texas.....	17	7.5	56	27	38.2	49	29	39	56	27	38.2	49	29	39	39	
Major Crozier's reports.....	14	7	483	55	294.5	483	55	294.5	483	55	294.5	483	55	294.5	294.5	
Average.....	181	90.5	146	8	14.6	152	11	29.7	146	8	14.6	152	11	29.7	18.2	
Highest.....			146	8	14.6	152	11	29.7	146	8	14.6	152	11	29.7	18.2	
Lowest.....																

a Total.

b Major Crozier's reports not included.

E.—Depots, staff posts, etc., eleven years, 1889-1900.

Depots, etc.	Reports examined for the 11 years.				Fiscal year 1890-91.				Fiscal year 1891-92.				Fiscal year 1892-93.				Fiscal year 1893-94.				Fiscal year 1894-95.			
	Total.	Aver- age per year.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.				
Quartermaster depots.....	68	6.2	7	5	6	19	2	9.4	21	1	9	13	6	8.8	28	1	16.4	23	1	11.6				
Commissary depots.....	81	7.4	.....	.....	.....	14	1	7.7	22	4	9.8	13	1	7.4	16	1	9.4	16	1	8.8	
Medical supply depots.....	38	3.6	.....	.....	.....	10	3	6.5	8	4	6	9	7	8.5	26	7	11.3	20	7	12.2	
Armories, arsenals, etc.....	131	11.9	31	3	13.4	38	4	13.3	21	3	8.9	24	4	9.5	33	3	13.8	14	3	8.5				
Recruiting rendezvous.....	232	21.1	.....	.....	.....	24	3	10.8	27	1	6.9	25	1	8.4	19	1	8.6	30	5	11.8	
National cemeteries.....	332	30.2	.....	.....	.....	19	1	8	48	1	13.2	22	1	8	20	1	7.2	19	4	11.9	
Average.....	1882	80.2	.....	.....	.....	88	.....	9.4	48	.....	10.5	25	.....	8.3	9.2	.....	9.2	30	.....	10.7
Highest.....	31	3	13.4	38	1	13.4	48	1	13.2	25	1	9.5	33	1	15.4	30	1	12.2				
Lowest.....	6	6.5	6	7.4	7.2	8.5				
aTotal																								

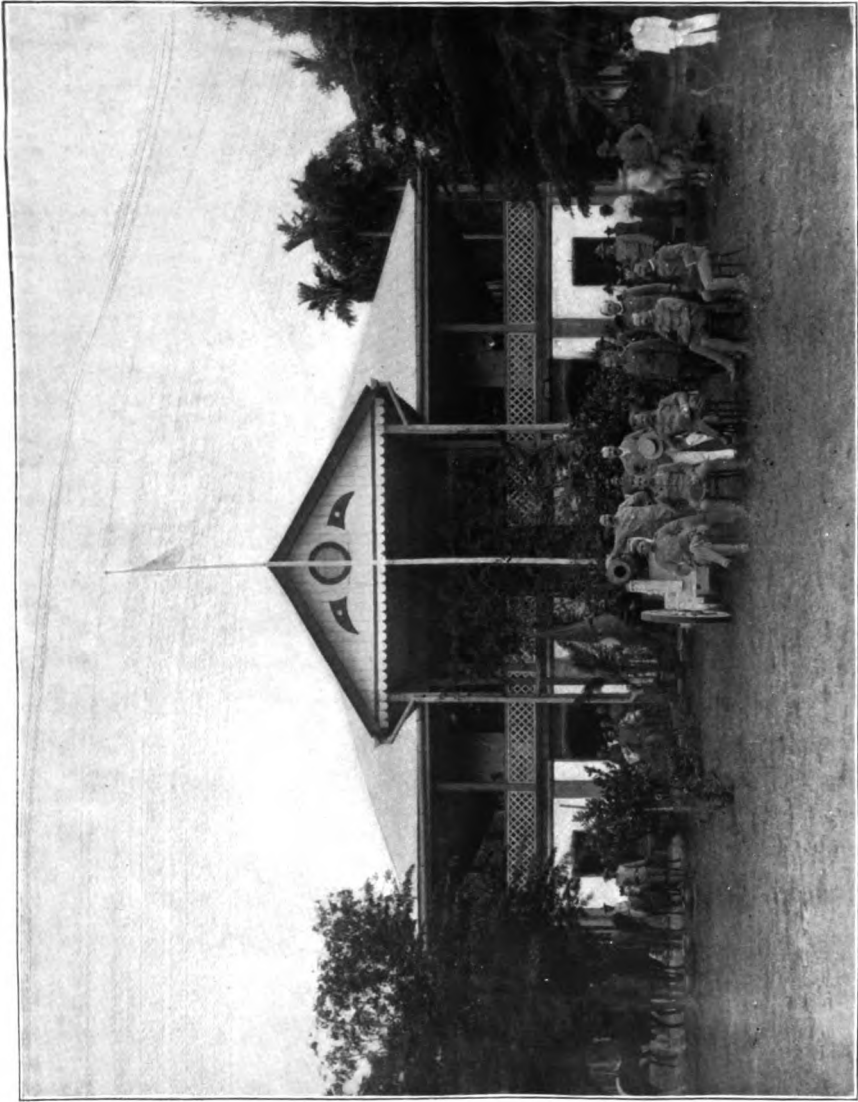
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E.—Depots, staff posts, etc., eleven years, 1889-1900—Continued.

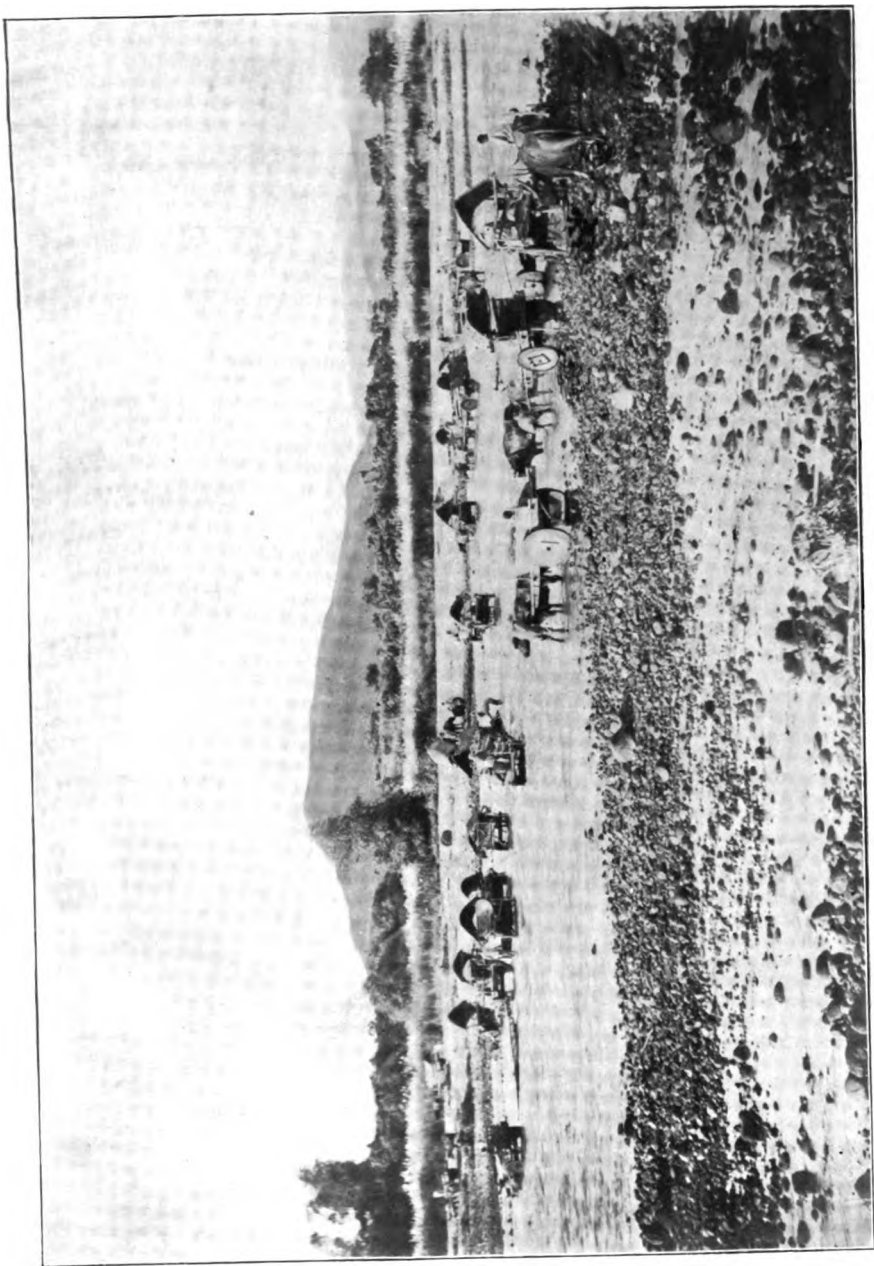
Depots, etc.	1895-96.			1896-97.			1897-98.			1898-99.			1899-1900.			For 11 years.		
	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.	Maxi- mum.	Mini- mum.	Aver- age.
	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.
Quartermasters' depots.....	24	3	11.4	22	5	12.9	18	6	11.6	25	3	9.3	16	7	10	28	1	16.4
Commissary depots.....	10	5	7.6	22	2	11.5	18	3	10.8	17	4	9.4	15	4	9.2	26	2	11.6
Medical-supply depots.....	15	6	9.8	14	5	8.2	16	9	12.3	11	8	9.5	21	8	13	21	3	12.8
Armories, arsenals, etc.....	23	3	11.8	19	4	9.6	44	5	17	49	6	16	45	2	16.4	49	2	17
Recruiting rendezvous.....	29	4	16.8	42	1	10	45	5	13.7	23	4	11.3	26	3	12.8	46	1	18.7
National cemeteries.....							41	2	18.4	41	2	11.6	28	4	11.7	43	1	18.4
Average.....			11.9			10.7			14.9			11.6			12.5			
Highest.....	29	3	16.8	46	1	12.9	45	2	18.4	49	2	16	45	2	16.4	49	1	18.4
Lowest.....			7.6			9.6			10.8			9.3			9.2			6

Department.	1898-99.			1899-1900.			For 2 years.			Disbursements.		
	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.	Reports exam- ined.	Maxi- mum.	Mini- mum.
	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.	Aver- age.
Alaska.....	58	49	5	77	20	56	77	20	56	165	5	18
California.....	58	25	6	133	6	20.3	133	6	20.3	68	9	11.7
Colorado.....	58	25	6	133	6	20.3	133	6	20.3	75	6	12.9
Columbia.....	35	70	7	115	10	13.1	115	10	13.1	62	6	13.7
Cuba.....	58	81	6	115	6	13.4	115	6	13.4	182	8	19
Dakota.....	58	81	6	115	6	13.4	115	6	13.4	182	8	19
East.....	58	49	5	133	6	20.3	133	6	20.3	62	6	12.9
Idaho.....	58	37	3	103	3	12.7	103	3	12.7	182	8	19
Illinois.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Indiana.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Iowa.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Kansas.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Michigan.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Minnesota.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Missouri.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Montana.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Nebraska.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Nevada.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
New Mexico.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
New York.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
North Carolina.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Ohio.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Oklahoma.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Oregon.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Pennsylvania.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Rhode Island.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
South Carolina.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
South Dakota.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Tennessee.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Texas.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Average.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Highest.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19
Lowest.....	58	47	3	103	3	12.7	103	3	12.7	182	8	19

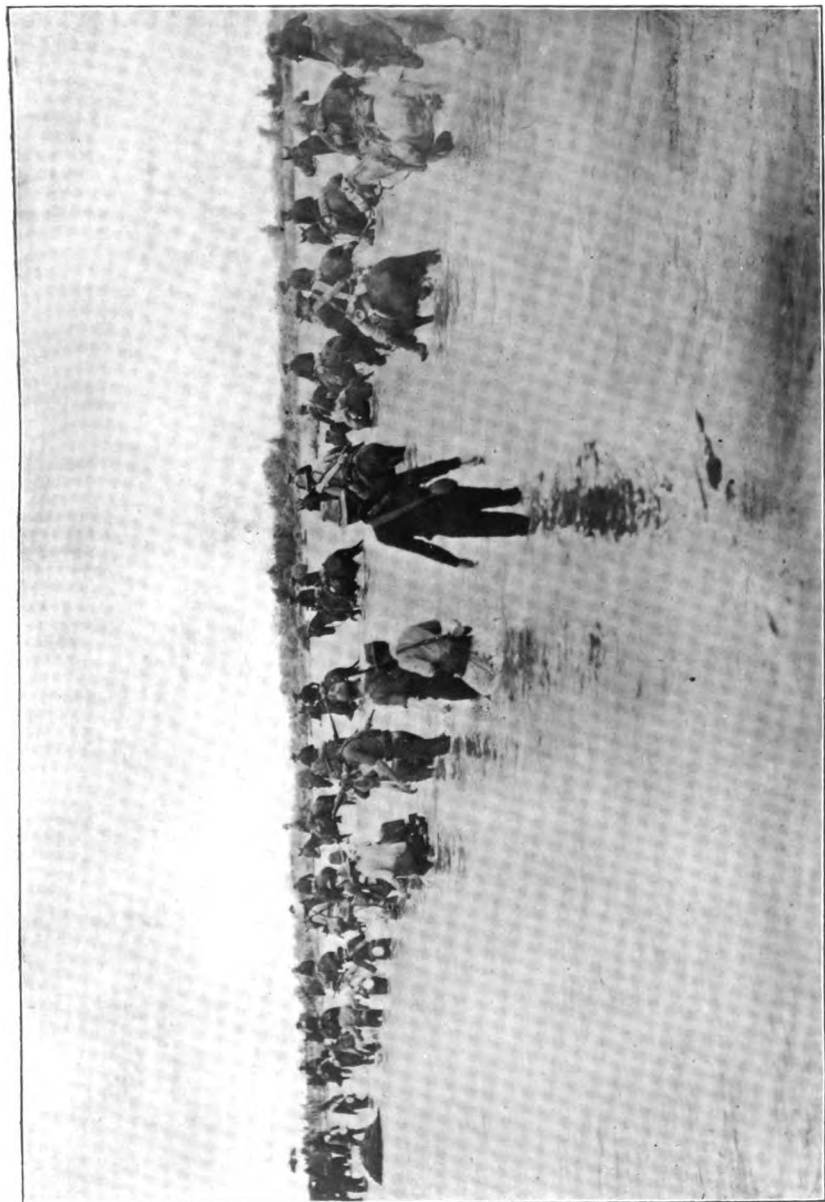
a Total.



HEADQUARTERS SECOND DIVISION, EIGHTH ARMY CORPS, FEBRUARY, 1900.



SUPPLY TRAIN FORDING PARAO RIVER, NEAR BAMBAN.



FORDING TARLAC RIVER, NOVEMBER 17, 1899 (TROOP E, FOURTH U. S. CAVALRY).

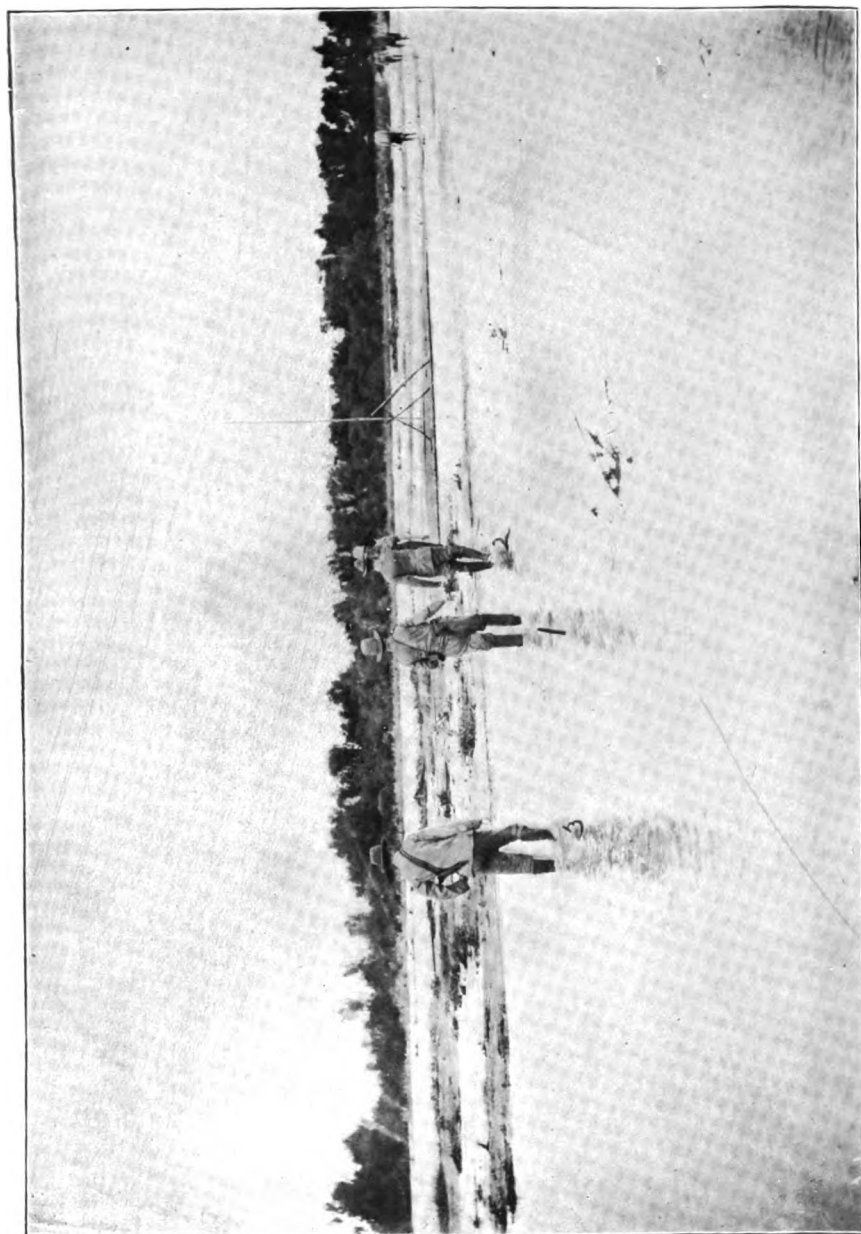


FORDING TARLAC RIVER, NOVEMBER 17, 1899.

1. General MacArthur.

2. Major Brown.

3. Mr. Aennie, interpreter.

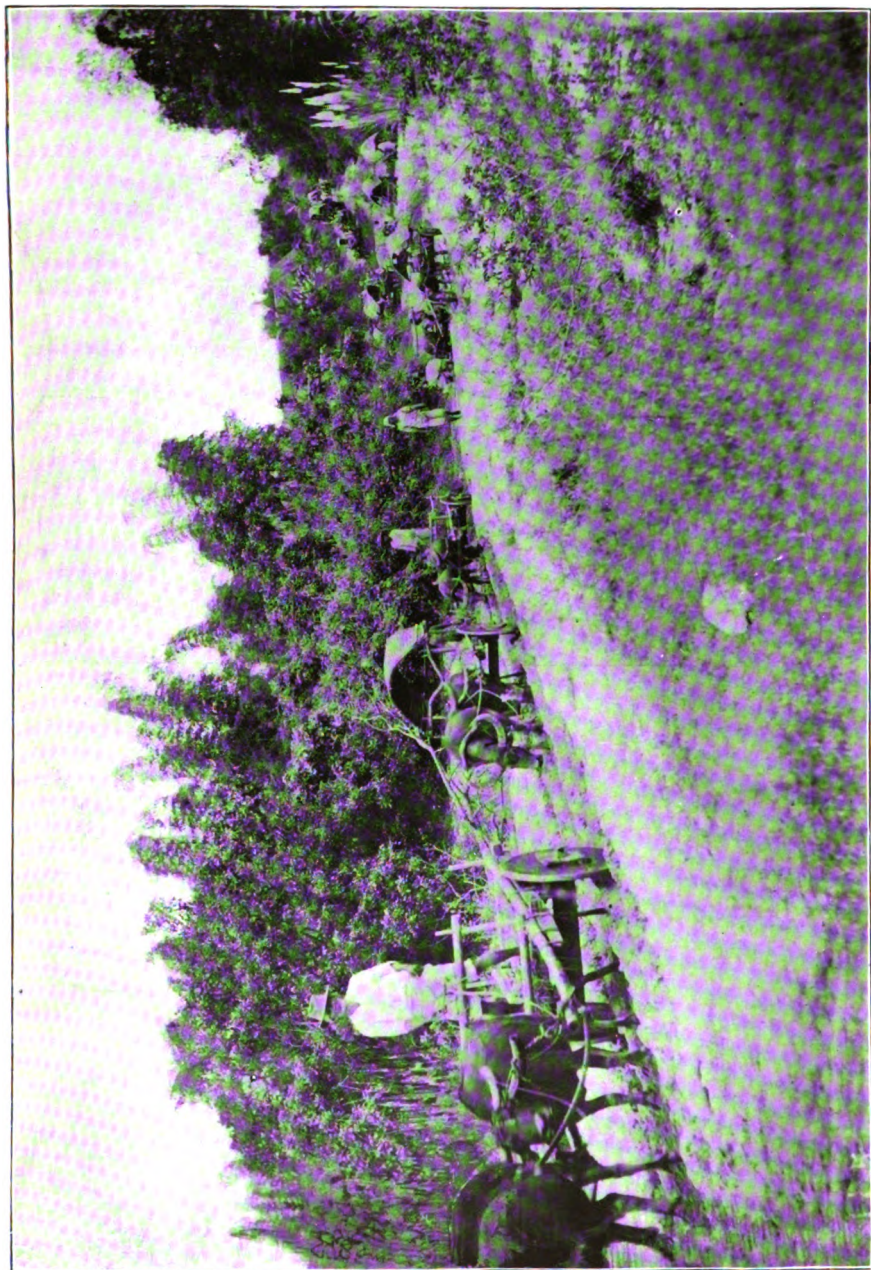


FORDING TARLAC RIVER, NOVEMBER 17, 1899.

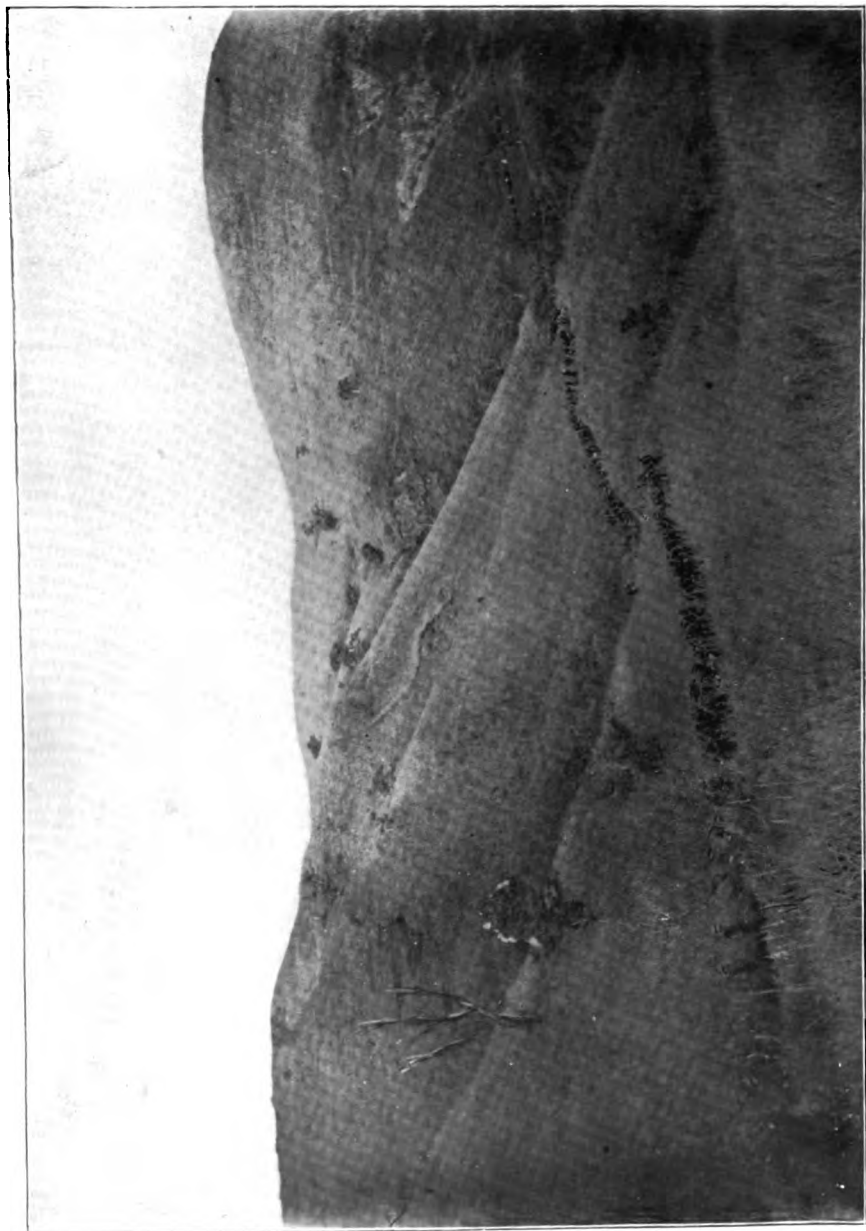
1. General MacArthur.

2. Major Brown.

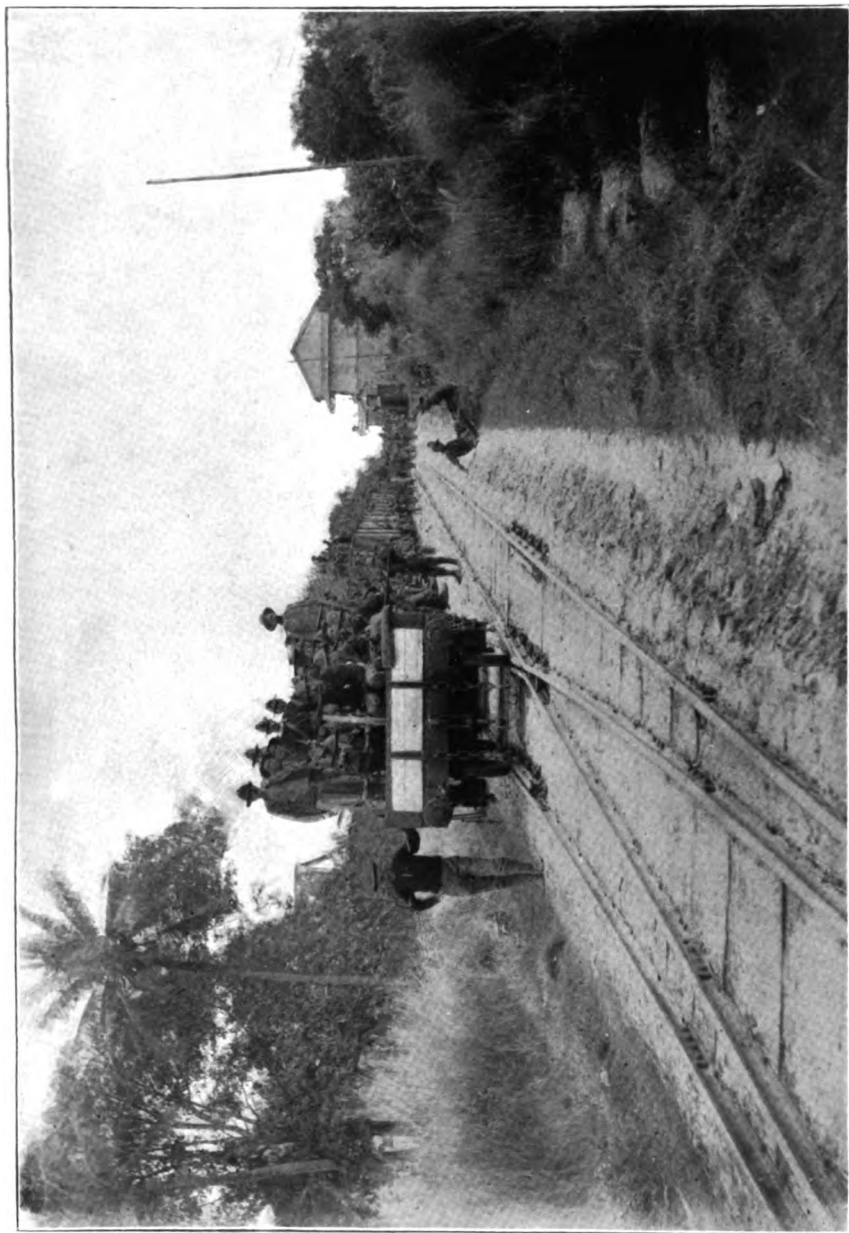
3. Mr. Aennle.



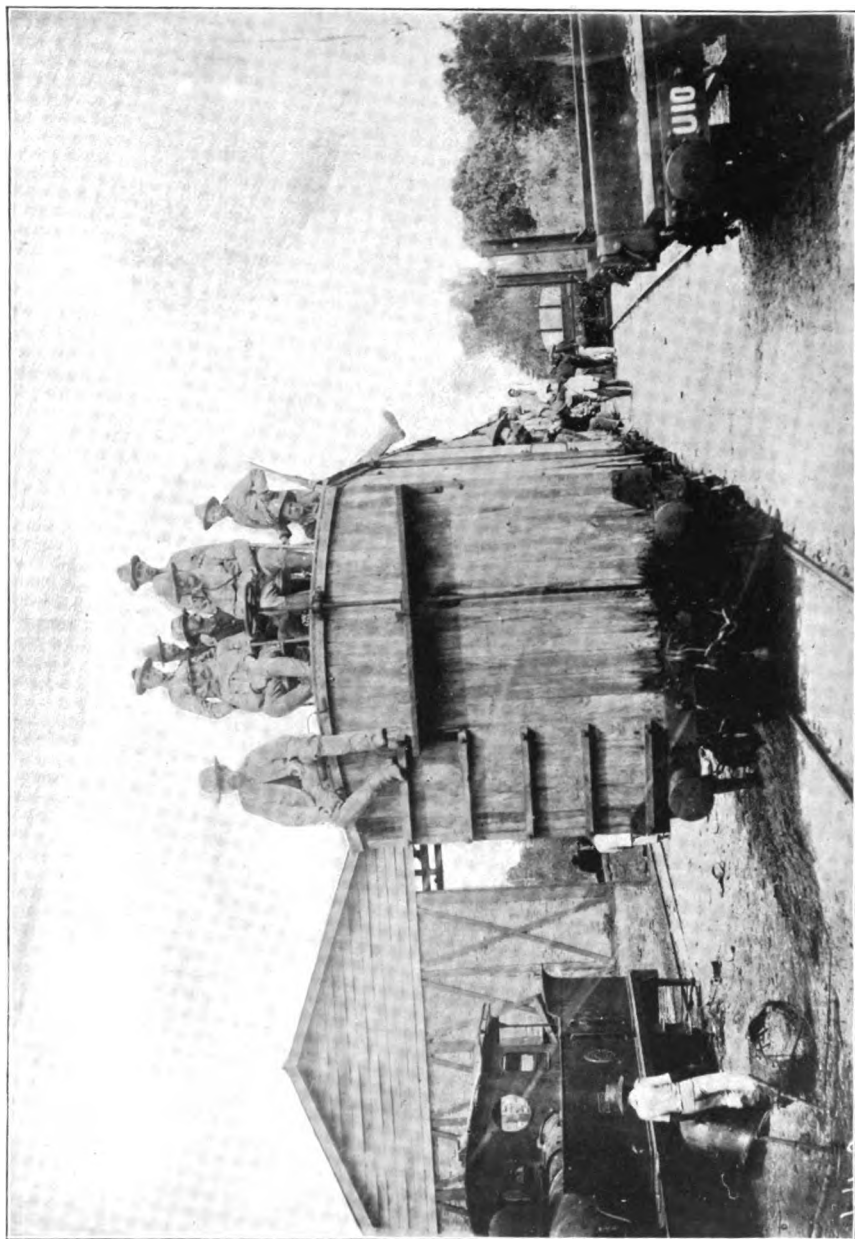
SECOND DIVISION SUPPLY TRAIN, NEAR BAMBAN, NOVEMBER 13, 1899.



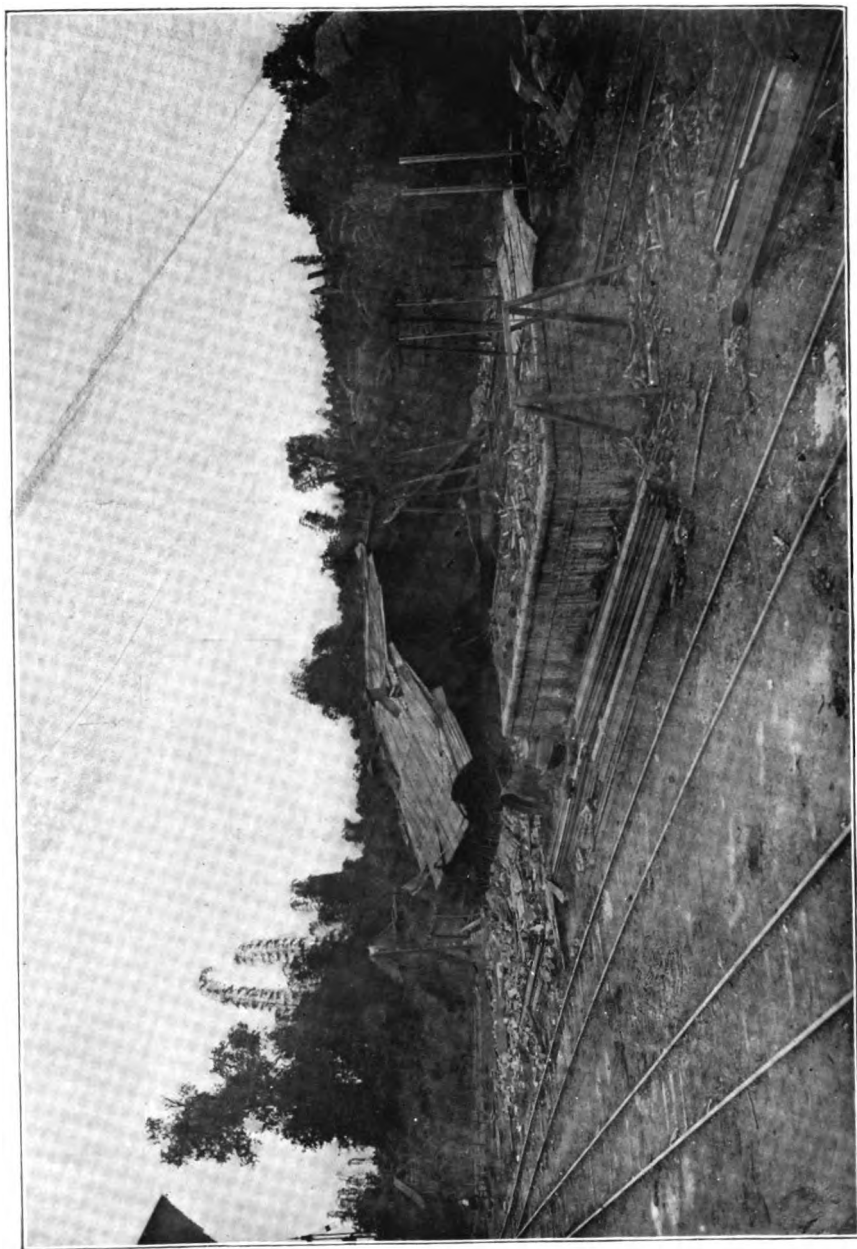
THIRTY-SIXTH U. S. VOLUNTEER INFANTRY MOVING INTO POSITION ON HILL IN FRONT OF BAMBAN, NOVEMBER 11, 1899.



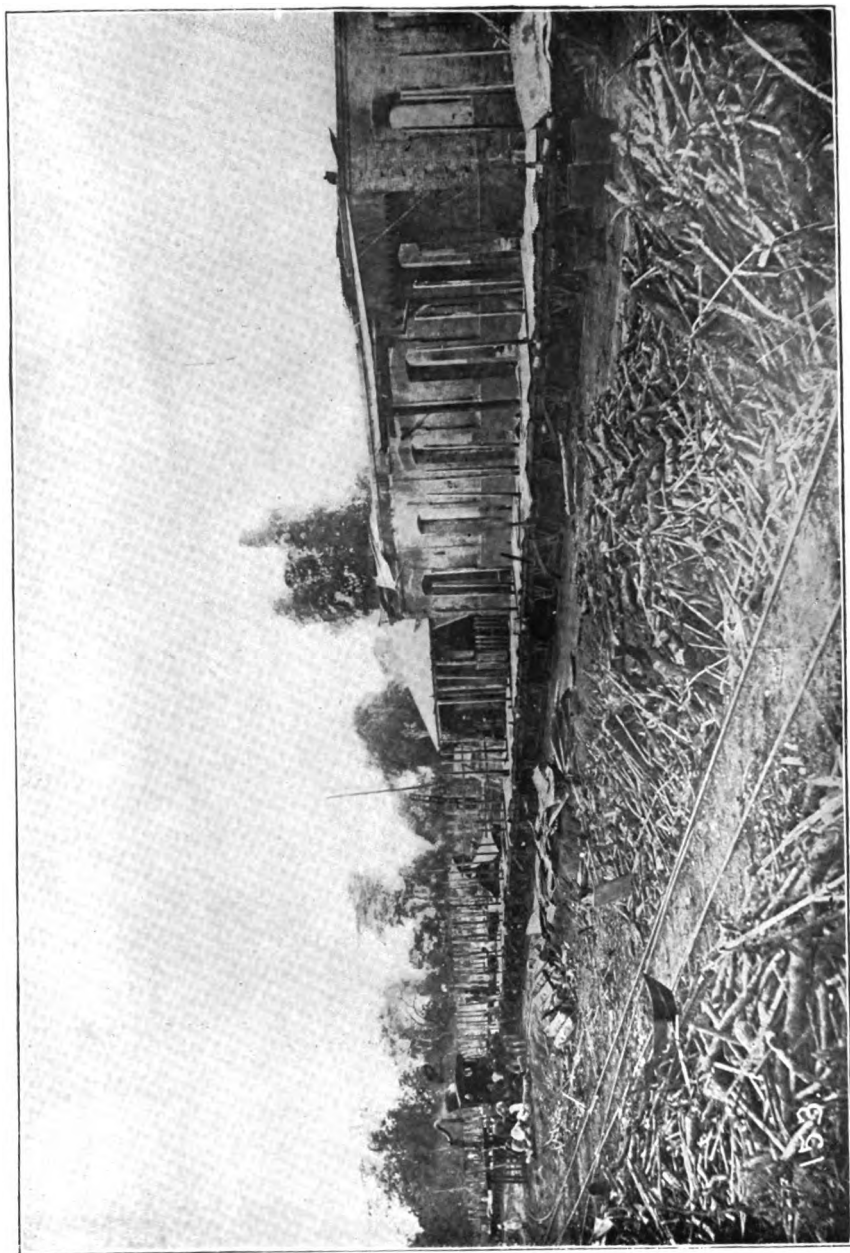
FIRST MILITARY TRAIN MADE UP NORTH OF TARLAC, AT PANIKI, NOVEMBER 18, 1899.



GENERAL MACARTHUR'S PRIVATE CAR.

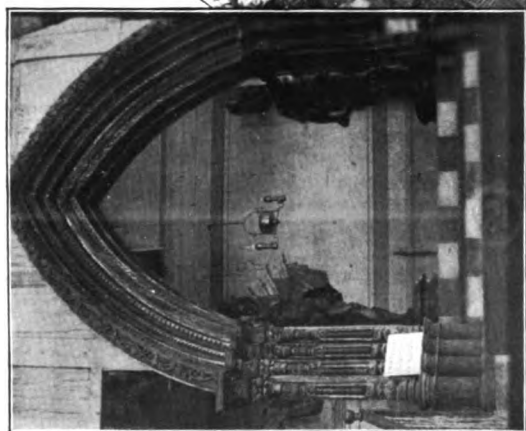


RAILROAD STATION, TARLAC.

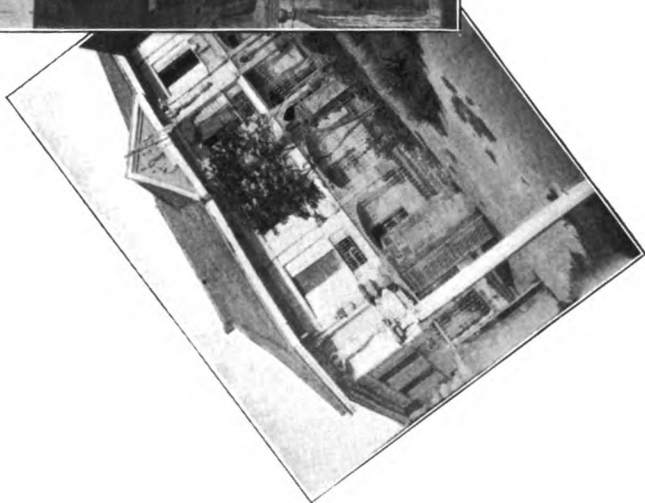


RAILROAD STATION, TARLAC.

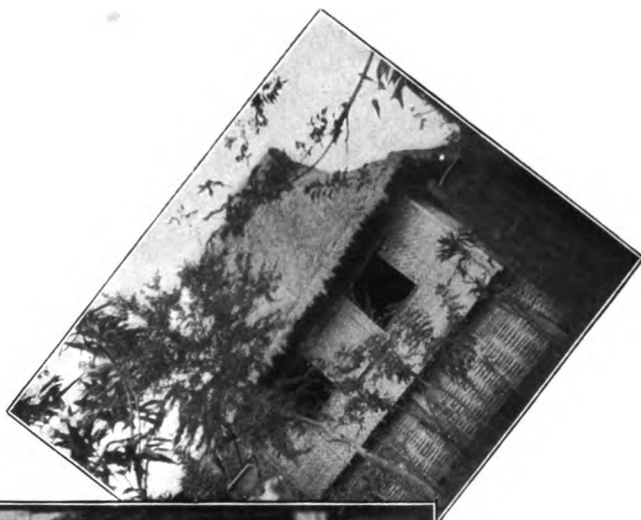
1. Burned cars arranged for service as flat cars.
2. First engine getting up steam.



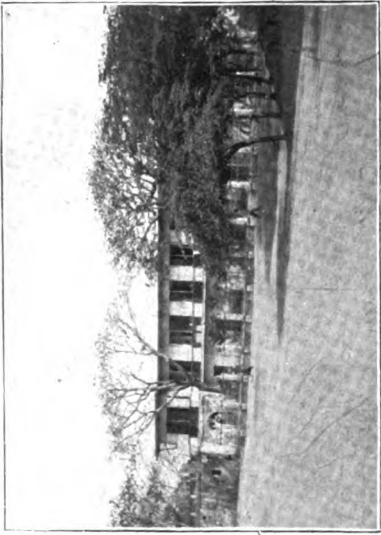
ENTRANCE TO HOSPITAL AT SANTA CRUZ. (CARVED FIGURES—NATIVE WORK.)



HOSPITAL AT SANTA CRUZ. (CARVED FIGURES—NATIVE WORK.)

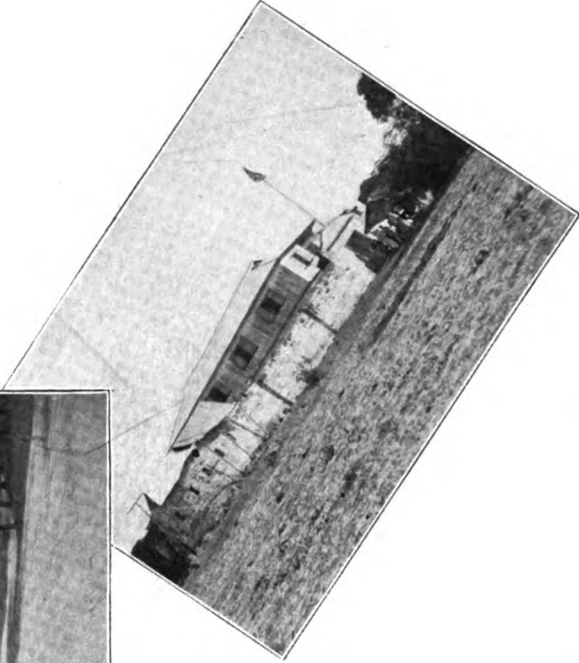


HOSPITAL AT TANAUAN.



HEADQUARTERS AT BINAN (TWENTY-EIGHTH INFANTRY).

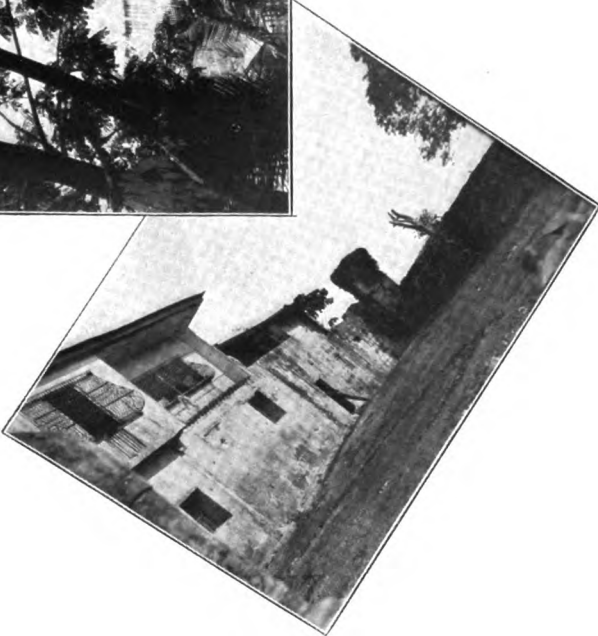
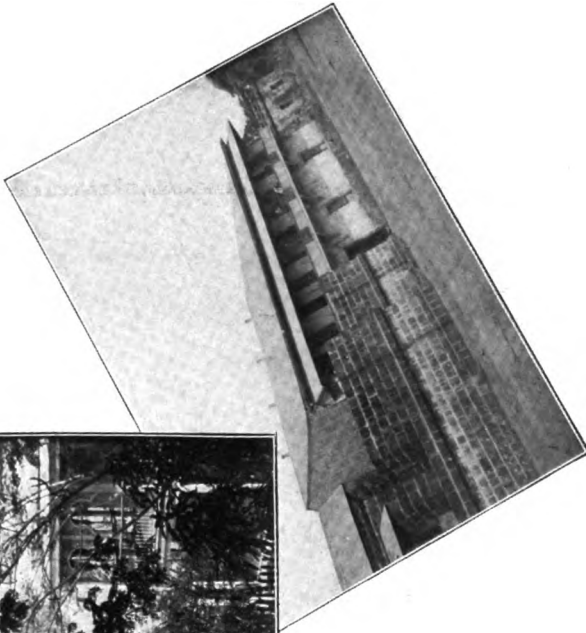
HOSPITAL AND QUARTERS, LOS BAÑOS (THIRTY-NINTH INFANTRY).



HEADQUARTERS AT MUNTINLUPA (TWENTY-FIRST INFANTRY).
(OLD SPANISH HACIENDA.)

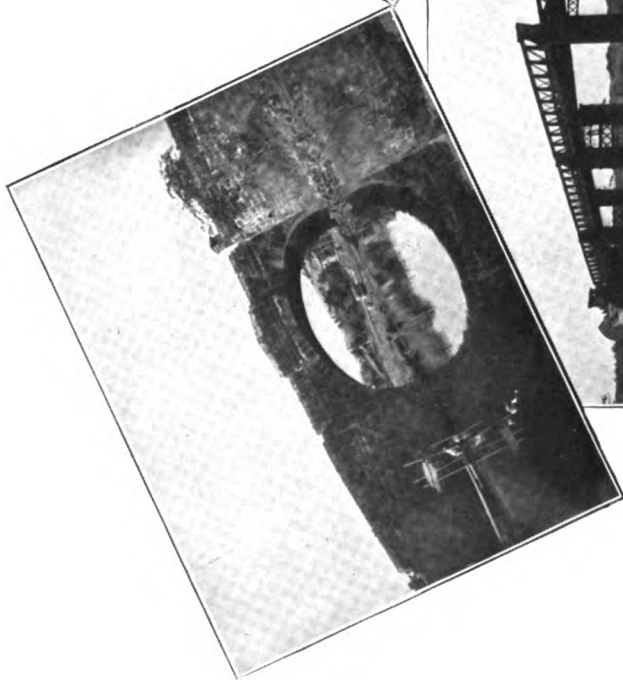


NEW QUARTERS AT MUNTINLUPA (TWENTY-FIRST INFANTRY), ACCOMMODATING 16 MEN; COST ABOUT \$40 EACH.
 QUARTERS AND OFFICE OF THE "CAPTAIN OF THE PORT" OF LUCENA.
 MILITARY ROAD, LUCBAN TO TAYABAS.



OFFICERS' QUARTERS IN MANILA. VIEW FROM BEDROOM WINDOW, "VALLEY FORGE."

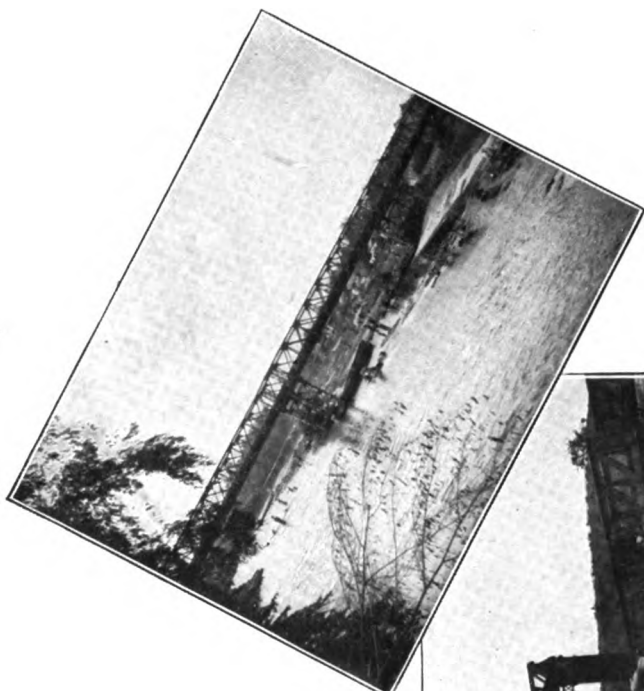
OFFICERS' QUARTERS AT MUNTINLUPA (TWENTY-FIRST INFANTRY).
CONVENT AT TAGUIG (FORTY-SECOND INFANTRY).



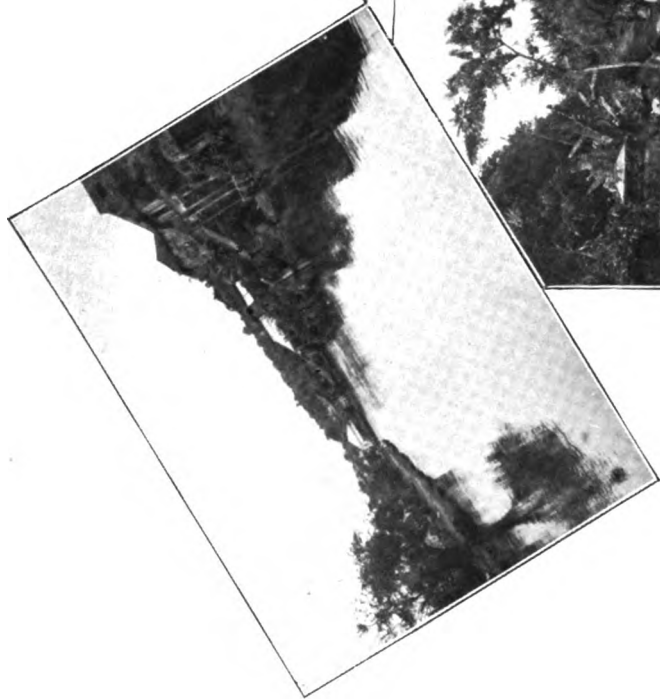
BRIDGE AT SANTA CRUZ.



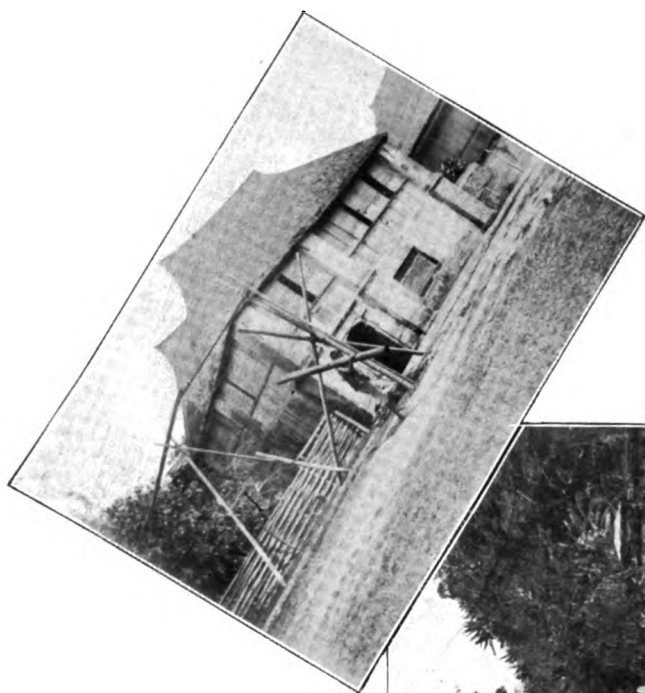
BRIDGE AT BAMBAN.



SPECIMEN OF BRIDGE VERY COMMON IN LUZON.



TAAL RIVER.



WATER SYSTEM IN MAJAYJAY. WATER CARRIED BY BAMBOO PIPES INTO THE SECOND STORIES OF HOUSES FROM HIGHER LEVELS.



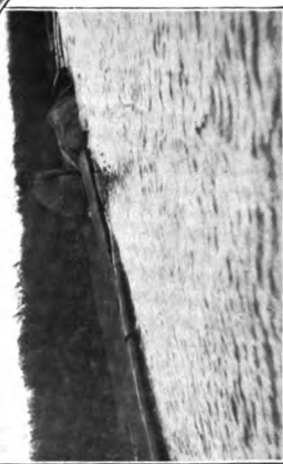
STONE BRIDGE, 150 FEET ABOVE STREAM, ON ROAD BETWEEN LUCBAN AND TAYABAS.



CARABAO TRAIN CAR TRANSIT AT CALAMBA. QUARTERMASTER EMPLOYEES
RETURNING TO WORK.



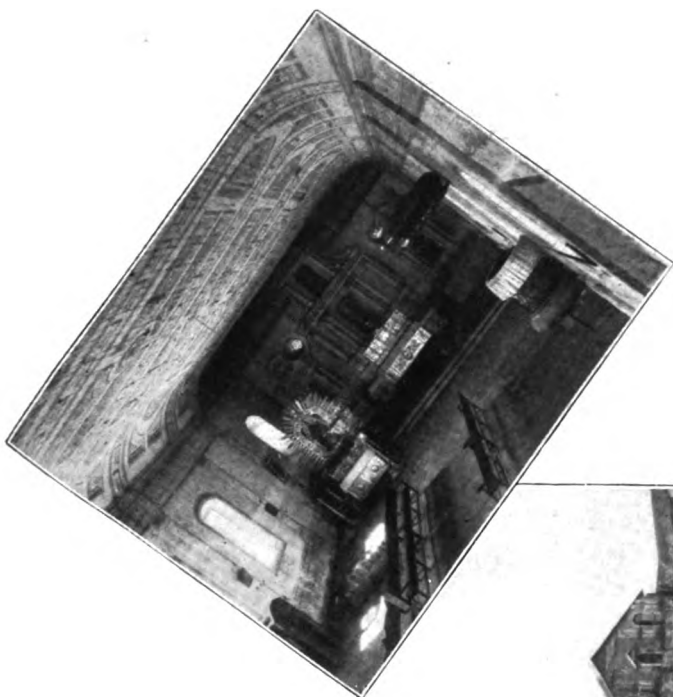
TILLING THE SOIL



CARABAO WATER TRANSPORTATION NEAR SINILOAN.



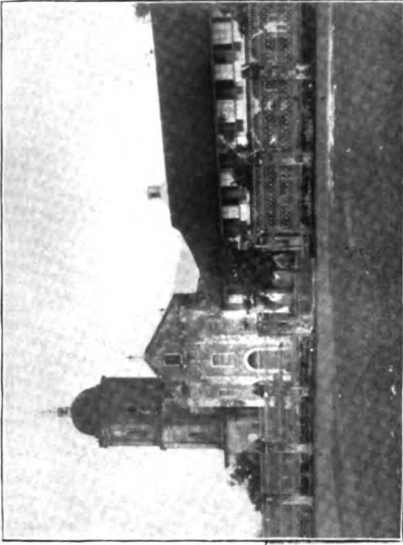
CHURCH AND CONVENT AT SANTO TOMAS (THIRTY-NINTH INFANTRY).



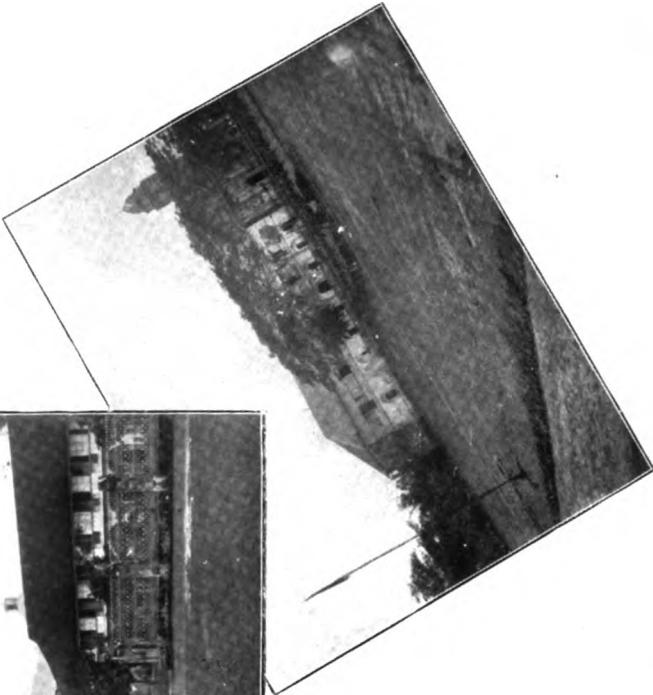
CHURCH AT MAGDALENA (THIRTY-SEVENTH INFANTRY).



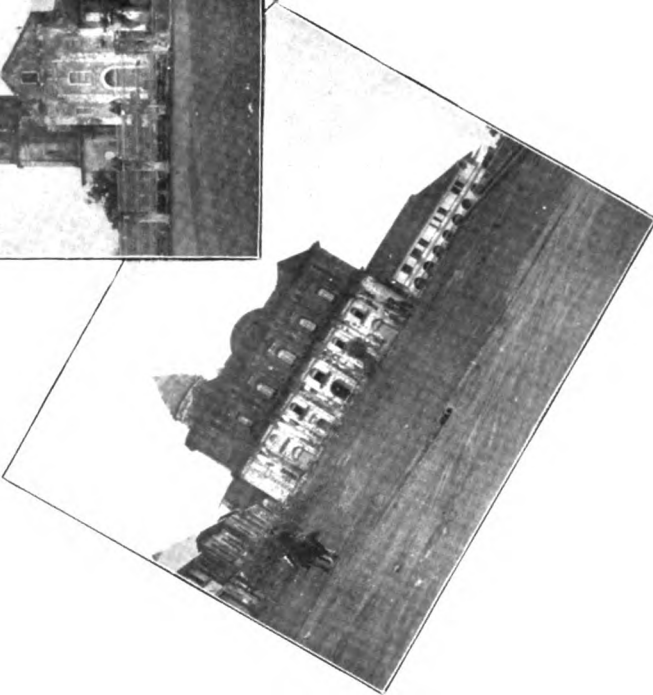
OLD CHURCH AT SANTA CRUZ (THIRTY-SEVENTH INFANTRY).



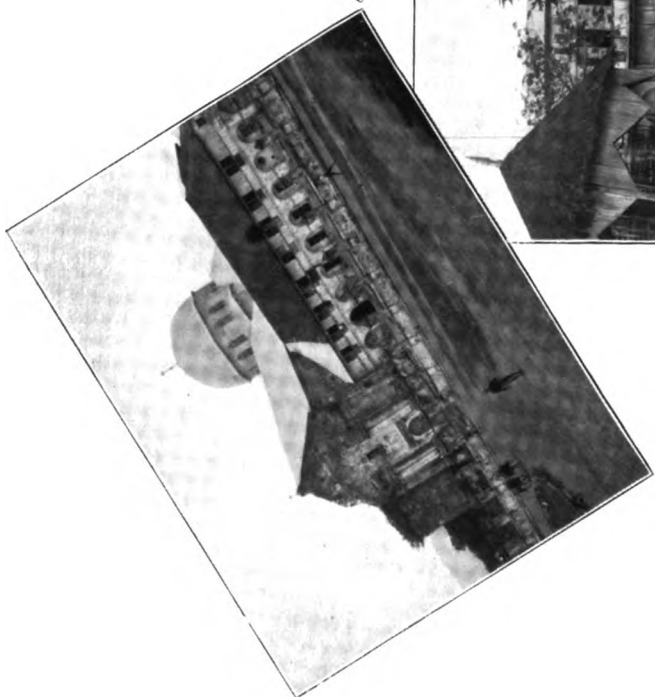
CHURCH AND CONVENT AT SAN JOSÉ.



CHURCH AND CONVENT AT BAUJAN.



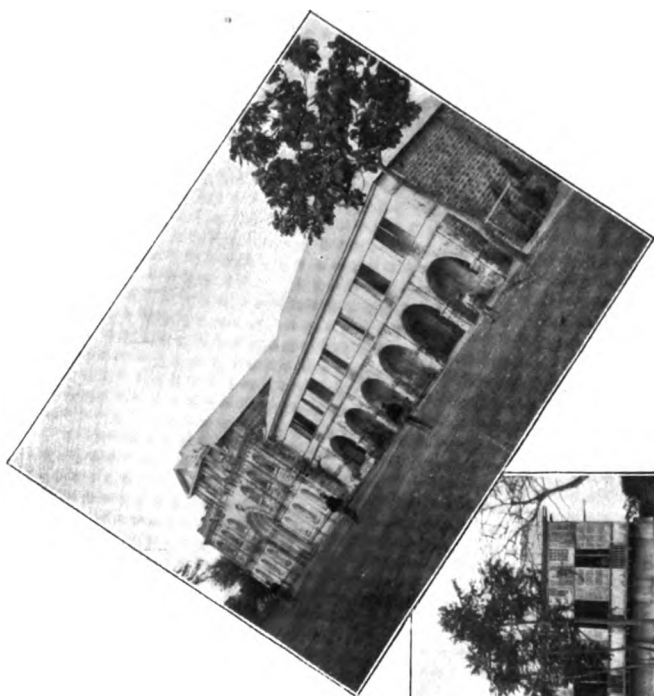
CHURCH AND CONVENT AT TAAL.



CHURCH AND CONVENT AT BATANGAS.



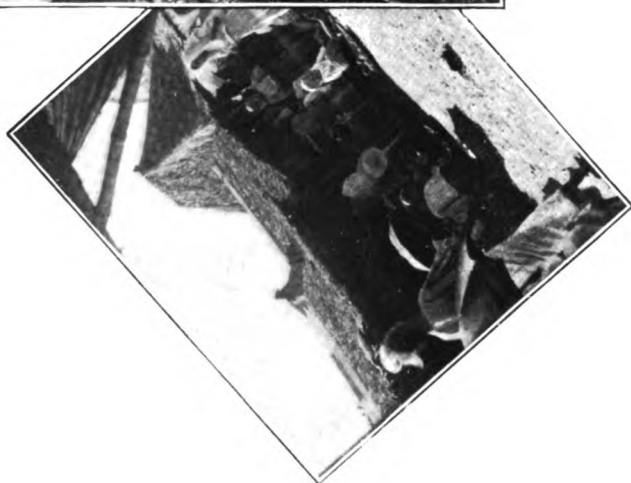
CHURCH AT SINILOAN (FORTY-SECOND INFANTRY).



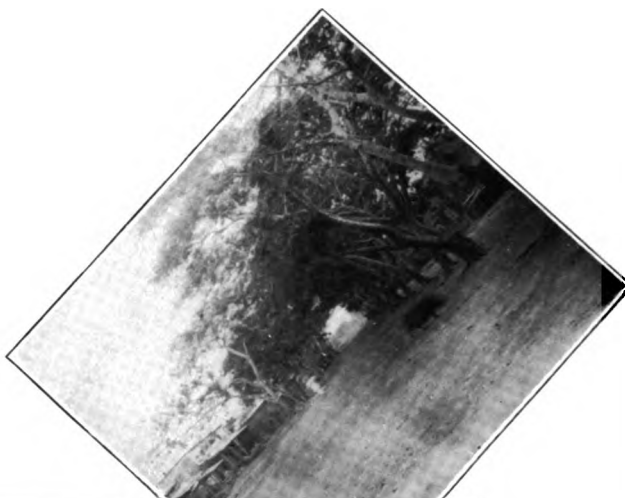
CHURCH AND CONVENT AT TANAUAN (THIRTY-NINTH INFANTRY).



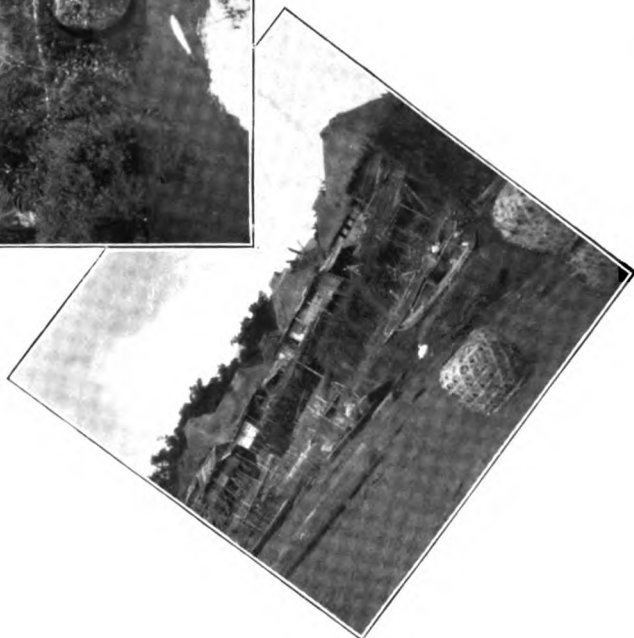
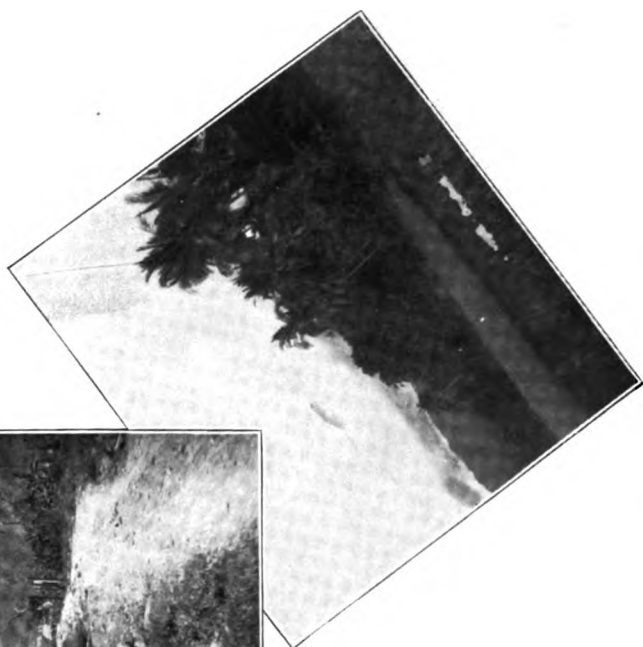
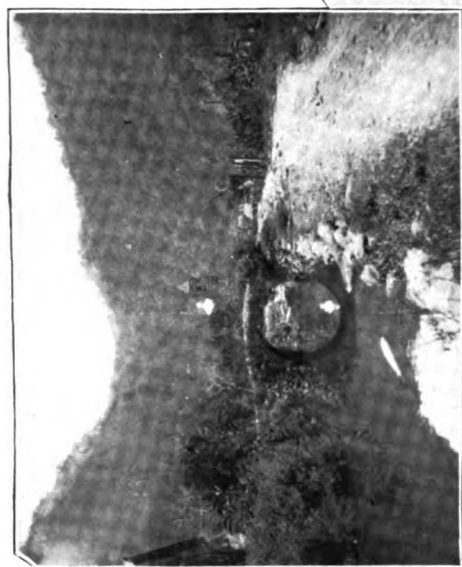
STREET IN PAETE. ATTACK ON FORTY-SECOND INFANTRY WAS FROM HILL IN BACKGROUND ON LEFT.



MARKET DAY IN CALAMBA.



STREET SCENE AT TANAUAN (THIRTY-NINTH INFANTRY).



APPROACH TO PAETE (FORTY-SECOND INFANTRY). ATTACK BY INSURGENTS WAS FROM HILL ON LEFT.
LANDING PLACE AT SINILOAN (FORTY-SECOND INFANTRY).
SCENE NEAR LUCBAN.



CEMETERY MATANZAS, CUBA.

**REPORT OF MAJ. GEN. JOHN R. BROOKE, U. S. A., COMMANDING
THE DEPARTMENT OF THE EAST.**

**HEADQUARTERS DEPARTMENT OF THE EAST,
*Governor's Island, New York City, September 29, 1900.***

**ADJUTANT-GENERAL UNITED STATES ARMY,
*Washington, D. C.***

SIR: I have the honor to submit my annual report of the conduct of affairs in this department.

I assumed command of the department May 10, 1900. Previous to that time, under the orders of the Secretary of War, I had inspected the posts on the Atlantic and Gulf coasts from Fort Monroe, Va., to New Orleans, La., and in addition the two posts on the Potomac below Washington.

As all the troops in this department belong to the artillery, with the following exceptions: the cavalry at Fort Myer, Va. (headquarters and four troops of the Fifth Cavalry); the infantry at Fort Columbus, New York City (three companies of the Eleventh Infantry); Fort Ethan Allen, Vt. (one company of the Eleventh Infantry); Madison Barracks, N. Y. (one company Fifteenth Infantry); Fort Ontario, N. Y. (one company Fifteenth Infantry); Plattsburg Barracks, N. Y. (one company Fifteenth Infantry), and Fort Porter, N. Y. (one company Fifteenth Infantry), I would invite especial attention to the remarks of the inspector of artillery, whose long and efficient service in the artillery branch of the Army gives particular weight to his recommendations in these days of rehabilitation and progress of our artillery.

It is impracticable at this time to make any recommendations regarding the artillery posts where the number of men enters as a factor, as it is impossible to calculate on any specific number; but I think that, as a minimum, the number of men necessary to form one relief for the guns established and proposed to be established should be taken as a basis of computation, and on that basis it would be possible for all departments of the Army to make positive plans for carrying on construction work.

It is not too early now to draw up plans for supporting the coast artillery; as it is not their province to act out of fortifications, their sphere of operations is limited and the presence of mobile troops to repel attacks from the rear and to prevent landing parties from gaining a foothold is imperative. I have previously referred to this matter, in my report dated April 16, 1900, as follows:

In all cases these defenses are vulnerable in case of attack from the rear. This, it is probable, will be looked out for by an army in the field, but the matter should be considered and the vicinity of each post for miles around should be mapped with a view to determining the lines of defense before the necessity for their use arises.

The importance of having all artillery in charge of coast fortifications stationed in the immediate vicinity of the guns becomes more apparent to me each day. While in numerous cases this means the

isolation of officers and men for the time such service is required, it is the only rational method of preparing for war and becoming accustomed to the conditions as they exist.

It is also imperative, in many cases, that more land should be acquired than that which has hitherto been bought for the erection of fortifications. This I have particularly noted in my recent inspection along the coast northeastward from here, and now is the time to acquire this land, so that when the forts are turned over to the line, barracks, quarters, storehouses, etc., may be ready for occupancy. In some places I have found that a very small plant for the accommodation of the garrison has been erected, and I cannot see that any provision has been made for its extension. I speak particularly of Plum Island, where there is a barrack for 60 men only. The garrison necessary to man the guns is 305, and the location of the barrack is distant from the nearest battery.

This is the case at many others of the defenses, and the need of making such corrections as may be possible does not require any argument. There are places along the coast where the defenses are exposed to danger from the inroads of the sea, which should receive prompt attention and be remedied before they are injured, either in themselves, their approaches, or surroundings. I believe that all this is known to the officers of engineers in charge, and I speak of it here as coming under my observation.

In my inspection of nearly all the posts and garrisons of this department, I have found that the enlisted men are exceptionally fine, physically, and also that the officers and enlisted men were enthusiastic in the matters relating to their profession, but at almost every post military duties are imperfectly performed and the instruction of the men handicapped by the lack of officers. Too many batteries and companies have only one officer present for duty, and at many posts where detachments are stationed there is no officer in command.

I desire to invite attention to the work done by the Chief Signal Officer in perfecting a system of wireless telegraphy. While this does not belong to departmental affairs, its utility to the Army at large is very great.

Plans should be perfected at the earliest possible date for complete and perfect communication between the units composing any fortress and the fortress commander.

For details of administrative work performed, I wish to invite attention to the reports of the various staff officers on duty at these headquarters. These duties have been well performed, as is evidenced by the reports in each case.

The matter of the Army reorganization has attracted a great deal of attention recently. For many years past the general officers of the Army have shown the necessity for an increase which will place the Army on an efficient basis and enable it to perform its duties with credit to itself and to the satisfaction of the nation. The events since the commencement of the Spanish war have demonstrated beyond doubt the necessity for a reorganization which will enable this nation to maintain the position in which it now finds itself placed, so that, in case of war, the Army may form the bulwark behind which the volunteer army may be created, as has always been done in our country, by organizing the people.

I am sir, very respectfully,

JOHN R. BROOKE,
Major-General, Commanding.

**REPORT OF BRIG. GEN. JOSEPH WHEELER, COMMANDING THE
DEPARTMENT OF THE LAKES.**

HEADQUARTERS DEPARTMENT OF THE LAKES,
Chicago, Ill., September 10, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit the following report of operations in this department during the period that it has been under my command:

Pursuant to orders from the Secretary of War, I assumed command of this department on June 25, 1900.

On July 19 I visited Fort Sheridan and made an inspection of the troops and post. The administration under Colonel Comba was highly creditable in all respects.

I respectfully recommend that the prison accommodations be materially enlarged. Since the discontinuance of the prison at Fort Leavenworth, convicts have been sent to Fort Sheridan and more room is needed. Confining convicted prisoners and soldiers awaiting trial together in the same compartments is objectionable, and if the prison is not enlarged some other plan should be adopted to promptly correct this evil.

In this connection I call attention to that portion of Lieutenant-Colonel Hall's report upon military prisons which I incorporate and make a part of my own report, fully concurring in his recommendation, as follows:

There is another matter I desire to call attention to; it is an old one and has been frequently discussed in the past. It is that at certain posts in the Army there are many prisoners confined for long periods who are mixed in with garrison prisoners and guarded by the soldiers of the garrison. The offenses of these long-time prisoners are generally theft, desertion, and other serious offenses. Most of these men, as a rule, belong to the criminal class, and have a very pernicious effect upon young men just entering the service, whether these men are confined with them or whether they are guards over them. All thoughtful officers of much service have had this condition and things strongly brought before them and it should certainly be remedied.

In order to do this I would suggest that all military prisoners sentenced to more than one year's confinement be sent to the old Leavenworth military prison or some other suitable place, in order to prevent their coming in contact with soldiers.

There are some advantages in maintaining a general mess, but I do not think that they are equal to the disadvantages. The system was organized at a time when the entire Army was in garrison and when there was little movement or active duty for the troops. Under the conditions which now exist the general mess is not the best system of administration. I respectfully recommend that every company have its separate mess arrangements, so that when it goes into the field the cooking and messing facilities will be adapted to such service.

I visited and inspected the troops and post at Columbus Barracks August 14. I found the administration and discipline under Major Penney to be excellent.

Columbus Barracks is now used largely as a recruiting station and seems to be well adapted to that purpose, the permanent garrison being one company of the Second Infantry.

I found the water supply very inadequate—by no means sufficient to maintain a sanitary condition at the post. I recommend that

measures be immediately taken to give the post an adequate and constant supply of water.

I also recommend that the grounds be inclosed by a wall so arranged that it can not be scaled by intruders.

I visited Fort Thomas on August 15. The two battalions of the Second Infantry, under command of Lieutenant-Colonel Corliss, had but recently arrived at that post from Cuba. I found them in excellent condition. The administration and discipline of the post was also excellent.

On July 28 and August 12 two battalions of the Fifth Infantry reached Fort Sheridan from Cuba, and from the entire regiment two battalions, including nearly all of the battalion which had previously garrisoned the post, were dispatched to San Francisco, the dates of their departure being: Third Battalion, August 10; headquarters, band, and First Battalion, August 20.

During the same period two battalions of the Second Infantry reached Fort Thomas from Cuba, and two battalions of the regiment, including nearly all of the battalion which was the original garrison, were dispatched to San Francisco, the dates of their departure being: Second Battalion, August 14; headquarters, band, and Third Battalion, August 20.

I recommend that all troops which go beyond the seas be accompanied by competent dentists. This could be best accomplished by obtaining authority from Congress to employ the necessary number of dentists as contract surgeons are now employed; or, in the absence of legislation, they could be appointed and permitted to accompany the regiments so that the soldiers could have the benefit of their services, which could be paid for and charged to the soldier.

I respectfully recommend that as much time as possible be devoted to perfecting recruits in marksmanship. A soldier is of very little service who is not skillful in handling his rifle, and what is probably more important, when a soldier feels assured that he can hit an enemy it adds to his confidence in himself. If soldiers see casualties in their own ranks and have no assurance that their fire upon the enemy is effective the moral effect upon them is bad. In this connection I also call attention to the report of Lieut. Col. William P. Hall, assistant adjutant-general, and incorporate the following from his report and express my full approval of his recommendation:

In this connection I desire to call attention to the following general order issued by the department commander with a view of emphasizing the great importance and value of target practice to troops going to the division of the Philippines and probably into active service:

GENERAL ORDERS, }
No. 9.

HEADQUARTERS DEPARTMENT OF THE LAKES,
Chicago, Ill., July 13, 1900.

I. In view of the fact that two battalions of the Second and Fifth Infantry are to be sent from the United States for active field service as soon as practicable, the commanding officers at posts in this department where parts of these organizations are stationed will use every effort to see that all enlisted men available for this service are given thorough instruction in pointing and aiming drills, mechanism and management of their rifles, and as much target practice as it is practicable to let them have.

All officers of experience know how absolutely essential it is that a soldier in active service should be a good shot and thoroughly understand his rifle. A systematic and thorough course of pointing and aiming instruction supplemented by a few shots at each range, to enable the man to understand the peculiarities of his arm as to shooting, will generally result in making the recruit a fair shot. This result when attained will not only be an absolutely essential qualification to a soldier's efficiency,

but it will give him confidence in himself and his rifle, which always makes a brave man more resolute and generally makes a timid man forget his fears.

II. With this end in view, the commanding officers at stations garrisoned by the Second and Fifth Infantry will at once begin the above indicated course of instruction for all soldiers and recruits and continue them daily, Sundays excepted, for as many hours each day as is practicable until all men are properly instructed.

III. As soon as the battalions of the Second and Fifth Infantry arrive from Cuba their instruction will be commenced and prosecuted vigorously upon the same lines until all men destined for foreign service reach as high a degree of proficiency in handling their arms as is possible.

The commanding general of the department is confident that it is only necessary to call the attention of officers to this important matter in order to have the spirit of the foregoing directions cheerfully and intelligently complied with.

IV. A compliance with the provisions of this order must in no way delay action upon the requirements of General Orders, No. 90, Headquarters of the Army, July 7, 1900.

By command of Brigadier-General Wheeler:

W. P. HALL,
Assistant Adjutant-General.

The officers at the various posts seem to have left nothing undone in their power to have recruits for foreign service instructed as much as possible. The fact, however, remains that at least four-fifths of the recruits from this department sent to foreign service have gone without any instructions in rifle practice and many of them without having rifles issued to them, and it is needless to say that these men are liable to be put in the line of battle before they know how to load and fire their rifles, aside from the fact that they have never been taught to hit the object at which they shoot. The consequences liable to occur from bringing such a class of men into an engagement are so serious that it is scarcely necessary to comment upon them. In case recruits of this character become engaged with disciplined and trained soldiers, the result must be terribly disastrous to our troops.

The long-range rifles with which armies are now equipped make it more than ever a vital necessity that soldiers should be good shots. When the effective range of rifles was 400 or 500 yards, it is easy to see how a lot of poor shots could do some execution. At the present time, with an effective range of from 1,200 to 1,700 yards, it is equally easy to see how a lot of poor shots could be killed by well-trained soldiers before their enemy could do them any damage.

I know from long experience in training soldiers to use their arms that this can not be done with the average recruit in less than two or three months, and its accomplishment in that length of time requires many hours' work each day by officers or noncommissioned officers who understand their business.

The remedy that I have to suggest is that no recruits be sent to the front from any depot until they have had two or three months' training in pointing and aiming drills and have fired at least 30 or 40 shots on the range in order to become acquainted with the peculiarities of their rifles. This will require a number of well-instructed officers and noncommissioned officers at each depot who should give special attention to this subject.

I respectfully recommend that a board of experienced officers be appointed to revise the course of instruction at the infantry and cavalry school. Some of the teachings are not adapted to present conditions. To illustrate: Young officers from the Military Academy and other schools are instructed and impressed with the importance during marches in active campaign of always having flankers on both sides of the road abreast of the leading files. In the Philippines I found that many officers regarded this rule as strictly as though it was a regulation. Such a system has proved to be unnecessary and very detrimental, retarding as it does the speed of a column's march. It was a useless precaution when troops were armed with guns used a third of a century ago, and with the present long-range guns there is no excuse whatever for its continuance. A better plan would be, when a column is marching in an enemy's country, for a noncommissioned officer and one private to form the advanced point. They should be followed by a column of files with intervals of about five to seven paces, the num-

ber of files being determined by the size of the column. If an attack comes from the left, they have only to face the left and are in the best possible position for either attack or defense. If an attack comes from the right, in like manner they face the right and are then in an equally good position. And if an attack comes from both sides, which would not be at all probable, the officer in command of the leading company could promptly devise means to meet such an emergency. By this method the march would not be retarded, which I regard as a matter of the utmost importance. It cannot be said to be an exaggeration to assert that 10,000 men who can march 30 miles a day are nearly as valuable for military purposes as 20,000 who can only march 15 miles a day. Of course, when a large body of troops is on the march the usual method should be adhered to, of having detachments of cavalry on roads parallel, or nearly so, to the line of march. Cavalry detachments should also scout out upon roads which cross the one being traveled.

I also recommend that speed in marching be given consideration in all practice marches and in all marches in campaign. When a soldier carries a gun, 150 rounds of ammunition, blanket and canteen, and one day's rations it is of the utmost importance that this burden should rest upon him as short a time as possible. If a day's march is to be 15 miles and he makes it in five hours he then can throw off all his burden and has the balance of the day for rest. If the march is prolonged to nine or ten hours this burden is upon him for so much longer period and he reaches his destination too late for rest and preparation for the night, and the men who go on guard frequently have no rest whatever before entering upon their new duty. I have found from experience in the Philippines that a quickstep was not tiresome to the men, and upon making inquiry among officers and soldiers I learned that the plan I have suggested was quite satisfactory to them. Another advantage of this is that the troops become accustomed to and enabled to make rapid forced marches, which oftentimes is the main feature in a successful campaign. I discovered that by marching fifty-five minutes and resting five minutes troops could easily cover 3 miles an hour and sometimes they even exceeded that speed.

I think care should be taken to have light shoes with thin soles for small men. A very heavy man needs more leather between him and the ground than a light one, and in providing shoes for the Army this matter should be given careful consideration.

There are also attached hereto reports of the following staff officers of this department: The adjutant-general, the acting inspector-general, the judge-advocate, the chief quartermaster, the disbursing quartermaster, the chief commissary, the chief surgeon, the chief paymaster, the engineer officer, the ordnance officer, the signal officer, the inspector of small-arms practice.

The following are the officers who have served upon my staff during the period covered by this report:

Lieut. Col. W. P. Hall, assistant adjutant-general, U. S. A., adjutant-general.

Cbl. Simon Snyder, Nineteenth Infantry (joined July 25, 1900), acting inspector-general.

Maj. Eli L. Huggins, Sixth Cavalry (relieved July 24, 1900), acting inspector-general.

Col. Thomas F. Barr, assistant judge-advocate-general, U. S. A., judge-advocate.

Col. James G. C. Lee, assistant quartermaster-general, U. S. A. (relieved July 16, 1900), chief quartermaster.

Lieut. Col. Edwin B. Atwood, deputy quartermaster-general, U. S. A. (joined July 16, 1900), chief quartermaster.

Maj. J. T. French, jr., quartermaster, U. S. Volunteers, assistant to the chief quartermaster.

Capt. R. L. Brown, assistant quartermaster, U. S. Volunteers, assistant to the chief quartermaster.

Maj. W. L. Alexander, commissary of subsistence, U. S. A., chief commissary.

Col. Albert Hartsuff, assistant surgeon-general, U. S. A., chief surgeon.

Capt. Henry I. Raymond, assistant surgeon, U. S. A., attending surgeon and examiner of recruits.

Maj. Charles H. Whipple, paymaster, U. S. A., chief paymaster.

Maj. Hugh R. Belknap, additional paymaster, U. S. Volunteers (relieved July 25, 1900).

Maj. Beecher B. Ray, additional paymaster, U. S. Volunteers (joined July 12, 1900).

All these officers have been highly efficient in the performance of their various duties.

Very respectfully,

JOSEPH WHEELER,
Brigadier-General, Commanding.

REPORT OF BRIG. GEN. HENRY C. MERRIAM, COMMANDING THE DEPARTMENT OF THE MISSOURI.

HEADQUARTERS DEPARTMENT OF THE MISSOURI,
Omaha, Nebr., August 1, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit annual report of conditions and administration of this geographical department during the past year.

The following organizations are now serving in the department:

Posts.	Commanding officer.	Organizations.
Fort Crook, Nebr	Maj. Walter Dugan, Tenth Infantry	Company I, Tenth Infantry.
Jefferson Barracks, Mo	First Lieut. Herschel Tupes, First Infantry	Company B, First Infantry.
Fort Leavenworth, Kans	Capt. R. N. Getty, First Infantry	Companies C and D, First Infantry.
Fort Logan H. Roots, Ark.....	Capt. F. E. Lacey, jr., First Infantry	Company A, First Infantry.
Fort Niobrara, Nebr	First Lieut. John F. Stephens, Tenth Infantry.	Company K, Tenth Infantry.
Fort Reno, Okla.	First Lieut. Henry B. Dixon, Eighth Cavalry.	Troop A, Eighth Cavalry.
Fort Riley, Kans	Lieut. Col. George B. Rodney, Fourth Artillery.	Tooops B and D, Eighth Cavalry; Light Battery F, Third Artillery; Light Battery B, Fourth Artillery; Siege Battery O, Seventh Artillery.
Fort Robinson, Nebr	Capt. Harry E. Wilkins, Tenth Infantry...	Company M, Tenth Infantry.
Fort Sill, Okla.	Capt. Farrand Sayre, Eighth Cavalry	Troop C, Eighth Cavalry.

Siege Battery O, Seventh Artillery, is under orders for service in the Orient, while orders have also been received for the recall of headquarters and two battalions of the First Infantry from Cuba to Fort Leavenworth, Kans. At that station headquarters, band, and two battalions will then be prepared for foreign service.

During the year the following troops have been prepared for service in the Tropics and forwarded from this department: Troop K, Third Cavalry; headquarters and Troops A, B, D, I, K, L, and M, Sixth Cavalry; Troops A, C, K, First Cavalry, and six regiments of United States Volunteer Infantry, namely, Thirty-second and Forty-fourth, at Fort Leavenworth, Kans.; Thirty-eighth and Forty-ninth, at Jefferson Barracks, Mo.; Thirty-ninth, at Fort Crook, Nebr.; Fortieth, at Fort Riley, Kans.

In the preparation of all these troops the greatest care was taken that they be carefully selected and thoroughly outfitted in every particular, and as well drilled before departure as time and circumstances would permit. Special attention was given to target practice, and it is believed that all of these troops left the department thoroughly equipped and in every way well prepared for the arduous duty they are now performing.

THEORETICAL INSTRUCTION.

Schemes for lyceum instruction at the various posts were prepared and submitted by post commanders and approved at these headquarters. For work done reference is made to Appendix A (No. 4), from which it will appear that the usual marked interest has been taken in this branch of instruction.

PRACTICAL INSTRUCTION.

Progressive schemes of instruction were prepared in accordance with orders and regulations covering the period from April 1 to November 30. Owing to the constant changes of troops it has been impossible satisfactorily to complete the schemes of instruction so outlined, but all commanding officers, so far as can be seen from their reports and gathered from the reports of the acting inspector-general of the department, have zealously endeavored to carry out their orders in this respect, covering garrison drills, field exercises, problems in minor tactics, calisthenic and gymnastic exercises, signal instruction, first aid, etc. For more complete illustration of what has been done in this direction reference is made to Appendix A (No. 7).

IMPROVEMENTS.

Extensive repairs and construction are now in progress under the able supervision of the chief quartermaster of the department, Lieut. Col. Forrest H. Hathaway, at Forts Leavenworth and Robinson and Jefferson Barracks. At the latter post I regret exceedingly that the Quartermaster-General did not find it practicable or advisable to remodel the post mess hall to serve as administration building, and by adding kitchens and mess rooms to the barracks make it possible to abolish the post mess at that important post as recommended by these headquarters. I suppose it is now conceded everywhere that the post mess is a distinct injury to the service and should be abolished as rapidly as possible.

The old Government building in this city has also been remodeled and converted into a most commodious and comfortable department headquarters, thus saving the large expenditure heretofore made for rent.

INDIANS.

I am glad to note that all Indian tribes residing within this department or contiguous to it have continued to be quiet and peaceable during the past year as during the previous year, so that no calls have been made for troops in connection therewith. From all reports received, it is also noted that progress is being made by all of the tribes in the direction of civilization. It is especially gratifying to report the quiet behavior and progress in agriculture and stock raising by the Apache prisoners of war, now located at Fort Sill, Okla. Of all the tribes encountered, the Apaches have been regarded as the least promising; in fact, twenty years ago no one would have ventured to predict the advancement these Indians have now actually made. For more complete particulars reference is made to the report of the officer in charge of Apache prisoners of war, Appendix L. These Indian prisoners, by their good behavior, have earned the good will and deserve liberal treatment and assistance at the hands of the Government.

ZEAL AND GOOD CONDUCT OF OFFICERS.

In all of the arduous work incident to mobilization, instruction, and forwarding of troops for foreign service, involving innumerable transfers of men and material, the organization of new regiments, and the practical reorganization of old ones, uniform zeal and energy of officers have been most noteworthy. Not a single case of neglect or misconduct of an officer has called for disciplinary measures, while my especial thanks are due to all of the members of my personal and department staff, and their assistants, for promptness and efficiency in the discharge of all their duties.

Very respectfully,

HENRY C. MERRIAM,
Brigadier-General, U. S. A.

REPORT OF COL. CHAMBERS M'KIBBIN, TWELFTH INFANTRY, COMMANDING DEPARTMENT OF TEXAS.

HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., August 25, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit the following report of the conditions and affairs in this department since June 30, 1899, the date of my last report:

The troops remaining on duty in the department are distributed as follows: Troop E, Tenth Cavalry, Fort Brown; Troop F, Tenth Cavalry, Fort McIntosh; Troop G, Tenth Cavalry, Fort Ringgold; Troop H, Tenth Cavalry, Fort Clark and Camp Eagle Pass; Battery O, First Artillery, Fort San Jacinto, Fort Crockett, and Fort Travis; Light

Battery K, First Artillery, Fort Sam Houston; **Company A**, Twenty-fifth Infantry, Fort Bliss; **Company C**, Twenty-fifth Infantry, and **Company D**, Twenty-fifth Infantry, Fort Sam Houston.

I have visited all the posts in the department, except Forts Brown and Ringgold. These will be visited later.

Fort Bliss, which I inspected last December, is in excellent condition. The buildings are all new and in good repair.

The garrisons and posts of Fort Clark and Camp Eagle Pass were inspected between February 3 and 5, 1900, and found to be in good condition, except Camp Eagle Pass. Camp Eagle Pass (old Fort Duncan) is garrisoned by a detachment from Fort Clark. The buildings are very old and nearly beyond repair. While habitable for a small detachment, when conditions will permit of a full garrison the question of a thorough rebuilding of the old post or the building of an entirely new post in a more suitable location will have to be considered. The present site (old Fort Duncan) is ill suited for a military post under modern conditions. The entire reservation is dominated by higher ground on the Mexican side. The Rio Grande has, year by year, cut into the reservation. At this point, where a large amount of American capital is invested, there should be an adequate garrison, and it is but a question of time when this point must of necessity be garrisoned. The citizens of Eagle Pass have offered to donate 640 acres of land situated on the high ground just east of the railroad bridge. This, in my opinion, is the proper site for the post, as it would command the bridges and fords and be safe from encroachments of the river. There is no cemetery at the post; 73 bodies of soldiers, civilians, and children were moved in April last from the plot formerly used as such to the national cemetery at San Antonio. This ground was outside the reservation and did not belong to the United States.

On December 8, 1899, I visited Galveston, Tex., and inspected Forts San Jacinto, Travis, and Crockett. These posts are about 4 miles apart, and the labor falling on one battery in garrisoning them, or rather furnishing care-taker detachments for them, is excessive. Nearly all the time of the battery has to be employed in the necessary cleaning and oiling for the preservation of the guns, leaving but scant time for the other instruction of the men. As soon as conditions will permit, at least one additional battery should be sent to Galveston.

The defenses when completed will consist of—

At Fort San Jacinto.—Battery of two 10-inch B. L. rifles; battery of two 3-inch 15-pounder rapid-fire guns; battery of two 4.7-inch rapid-fire guns; battery of two 6-inch rapid-fire guns; battery of eight 12-inch mortars; battery of two 10-inch B. L. rifles at Pelican Spit.

NOTE.—Pelican Spit is separated from Fort San Jacinto by a narrow channel, and is just inside the harbor entrance.

At Fort Crockett.—Battery of two 10-inch B. L. rifles; battery of two 3-inch 15-pounder rapid-fire guns; battery of eight 12-inch mortars.

At Fort Travis.—Battery of two 8-inch B. L. rifles; battery of three 3-inch 15-pounder rapid-fire guns; battery of four 6-inch rapid-fire guns.

These are all in excellent condition.

At the time of my visit the battery was in comfortable temporary buildings near Fort Crockett. Since then, 60 acres adjoining the reservation have been purchased, giving sufficient room for the erection of barracks and quarters for a two-battery post. Permanent

buildings for one battery are now being erected there, and will be occupied before another winter.

There are now at Fort San Jacinto permanent quarters, consisting of barracks, officers' quarters, storehouses, etc., for a garrison of 65 men. These are not habitable, however, by reason of the fact that they are on piles raised to a height of about 10 feet above mean low tide, with water at high tide flowing under the buildings. Through an arrangement between the Engineer and Quartermaster's departments, a steam dredge, the property of the Engineer Department, has been at work (when not required for its regular work in the harbor), since November, 1899, pumping sand on to the post site. There is such a large amount of filling required at this post, and also at Forts Crockett and Travis, that I think it would be more economical for the Quartermaster's Department to purchase, or construct a suitable dredge of its own. Only about one-sixth of the fill has been made, under the present arrangement in seven months.

Fort McIntosh is in very good condition. At the time of my visit the water system was sadly in need of overhauling. This has since been done.

At department headquarters a long felt want has been supplied by the construction of a modern sewer system. The construction of a system for Fort Sam Houston adjoining is to be commenced soon. The buildings and grounds here are in good condition.

The Thirty-third Infantry, U. S. Volunteers, was organized at Fort Sam Houston, Tex., in July and August, 1899, and left on September 15, 1899, for San Francisco, en route to the Philippines. Especial attention was paid to the instruction of this regiment in target practice, the regiment being sent by battalions to Fort Clark, Tex., for that purpose. The expense thus incurred was well repaid by the brilliant record the regiment made immediately after landing in the Philippines.

INSTRUCTION AND TRAINING.

Schools and lyceums were conducted as required by existing regulations wherever the conditions obtaining would permit. An account of the operations of same appears in Exhibits 2 and 3, Appendix A.

It can not be said that the lyceum course, under existing conditions, has been of especial value, nor can satisfactory results be obtained until a greater number of officers are present at each post.

The methods prescribed in General Orders No. 51, Adjutant-General's Office, of 1897, while conducive to excellent results, can not be made applicable at one-company posts.

Schools for noncommissioned officers, under the immediate charge of troop, battery, and company commanders, have been carried on during the entire year.

A course of practical instructions, including small-arms practice, signal instruction, close and extended order drills, instructions in packing at all posts garrisoned by cavalry, and in the duties of litter bearers and first aid to the sick and wounded, calisthenic and gymnastic training, as well as instructions in minor tactics as contemplated by General Orders No. 53, Adjutant-General's Office, 1896, has been prescribed and is being carried out with as good results as can be expected, considering the reduced garrisons and heavy demands made upon the troops for necessary police and fatigue duties.

LAUNDRIES.

The washing of the clothing of the enlisted men has been a source of more or less trouble, especially in this climate, where the wearing of the authorized duck clothing during many months of the year is imperative. The extra laundry expense in keeping this clothing clean falls heavily upon the men without corresponding increase in pay and allowances.

The subject has received careful consideration, and upon the recommendation of the commanding officer, Fort Ringgold, Tex., a laundry was established at that post in connection with the post exchange, which, it is thought, successfully solves the problem. The expense to the men has thus been reduced from \$2.50 to \$4 per month (heretofore paid to laundresses) to \$1 per month, and in addition all the soiled bedsacks, mattress covers, etc., on hand at the post have been laundered without expense to the Government. Laundries are now in successful operation at Forts Brown, Clark, and Ringgold. Reports from Forts McIntosh and Bliss state that owing to local conditions it has been impracticable to establish them. The credit for the inception of the scheme is due to Capt. Guy Carleton, Tenth Cavalry, commanding Fort Ringgold, where the laundry has been in operation for five months. His report with reference thereto was forwarded July 30, 1900.

SEMINOLE-NEGRO INDIANS.

Special attention is invited to the status of the Seminole-negro Indians residing by permission on the Fort Clark Military Reservation. These people number about 150.

The Seminole treaty of 1866 provided for two classes of colored people only, viz: (1) Persons of African descent and blood who were residing in the Seminole country on the date of the treaty and their descendants, and (2) such others of the same race as should be permitted by the Seminoles to settle with them.

The Interior Department has held that they do not belong to the first class; that at the date of the treaty they were not residents of the Seminole country; nor had they been at any other time; that they were not held as slaves, nor were they even residents of this country at the date of the abolition of slavery, but were citizens and subjects of Mexico, where they had immigrated from the United States in 1849, and were in no sense freedmen and could not then acquire any legal rights in the Indian Territory under existing treaties and laws.

These people returned to the United States shortly after the civil war, and many of the male adults were enlisted in the Army as scouts, being subsequently discharged.

During the flood of 1899 such crops as they had planted were destroyed, and it became necessary for the Government to provide subsistence until again able to render themselves self-supporting.

Having forfeited their rights to residence and citizenship in Mexico and being neither citizens of the United States nor recognized by the Seminoles as part of their people, some action should be taken whereby the status of these people may be defined. It is respectfully recommended that the attention of Congress be called to these people.

Attention is invited to the accompanying detailed reports of the department staff.

Very respectfully,

CHAMBERS McKIBBIN,
Colonel Twelfth Infantry, Commanding.

**REPORT OF BRIG. GEN. JAMES F. WADE, U. S. A., COMMANDING
DEPARTMENT OF DAKOTA.**

HEADQUARTERS DEPARTMENT OF DAKOTA,
St. Paul, Minn., September 10, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: In compliance with the instructions of the Lieutenant-General Commanding the Army, I have the honor to submit my annual report.

Since my last report I have continued in command of this department. From January 21 to June 25, 1900, I was, by direction of the President, also in command of the Department of the Lakes. Have performed no other duty without the department.

Camp Bacon at Walker, Minn., was abandoned May 28, 1900. Forts Assiniboine and Missoula, Mont., have remained ungarrisoned, but have been cared for by detachments from other posts. Considerable repairs have been made on buildings at the various posts, and all are in fair condition.

The Indians on the numerous reservations in the department have given no trouble.

The transfers of troops to and from the department, changes of station, practice marches, and other events occurring since my last annual report were as follows:

FIRST CAVALRY.

Troop G (2 officers and 93 enlisted men), under command of Capt. George W. Goode, First Cavalry, left Fort Meade, S. Dak., July 16, 1900, for Fort Yellowstone, Wyo., where it arrived and took station July 18, 1900.

Troop D (2 officers and 87 enlisted men), under command of First Lieut. John W. Craig, First Cavalry, left Fort Yates, N. Dak., July 21, 1900, for Seattle, Wash., en route for foreign service.

Headquarters, field and staff, band and Troop I (6 officers and 158 enlisted men), under command of Lieut. Col. Thomas C. Lebo, First Cavalry, left Fort Meade, S. Dak., July 22, 1900, for Seattle, Wash., en route for foreign service.

Troop M (3 officers and 101 enlisted men), under command of Capt. Oscar J. Brown, First Cavalry, left Fort Yellowstone, Wyo., July 24, 1900, for Seattle, Wash., en route for foreign service.

SEVENTH INFANTRY.

Company A (111 enlisted men), under command of Capt. George W. McIver, Seventh Infantry, left Camp Bacon, Walker, Minn., May 28, 1900, for Seattle, Wash., preparatory to proceeding to Fort St. Michael, Alaska, for station.

EIGHTH INFANTRY.

Detachment of 12 enlisted men, under command of First Lieut. Edwin Bell, Eighth Infantry, arrived and took station at Fort Snelling, Minn., September 5, 1899, from detached service in Alaska.

Companies I, K, L, and M (depot battalion), 4 officers and 232 enlisted men, under command of Capt. Edward N. Jones, jr., Eighth Infantry, arrived and took station at Fort Snelling, Minn., September 22, 1899, from Columbia Barracks, Quemados, Cuba. Total distance traveled, 2,530 miles.

Companies E and F (5 officers and 205 enlisted men) arrived and took station at Fort Snelling, Minn., July 24, 1900, from Columbia Barracks, Cuba. Distance traveled 2,686 miles.

Headquarters, band, and Companies A, B, C, D, G, and H (21 officers and 595 enlisted men), under command of Lieut. Col. Philip H. Ellis, Eighth Infantry, arrived and took station at Fort Snelling, Minn., July 27, 1900, from Columbia Barracks, Cuba. Distance traveled, 2,686 miles.

Company B (3 officers and 85 enlisted men), under command of Capt. F. H. Sargent, Eighth Infantry, left Fort Snelling, Minn., August 8, 1900, for Fort Yates, N. Dak., where it arrived and took station August 10, 1900. Distance traveled, 505 miles.

Third Battalion, Companies I, K, L, and M (8 officers and 487 enlisted men), under command of Maj. William L. Pitcher, Eighth Infantry, left Fort Snelling, Minn., August 15, 1900, for San Francisco, Cal., en route for foreign service.

Headquarters, band, and Second Battalion, Companies E, F, G, and H (14 officers and 536 enlisted men), under command of Maj. John F. Stretch, Eighth Infantry, left Fort Snelling, Minn., September 6, 1900, for San Francisco, Cal., en route for foreign service.

Company D (95 enlisted men), under command of Capt. Charles Gerhardt, Eighth Infantry, left Fort Snelling, Minn., September 8, 1900, for Fort Harrison, Mont., where it arrived and took station September 9, 1900. While en route a detachment of 34 men of this company was left at Fort Assiniboine, Mont., for duty at that post, relieving a similar detachment of Company D, Twenty-fourth Infantry, which boarded the train and proceeded to Fort Harrison to rejoin its company.

TWENTY-FOURTH INFANTRY.

Detachment of Company D (2 noncommissioned officers and 20 privates) left Fort Harrison, Mont., July 17, 1899, for Fort Assiniboine, Mont., where it arrived and took station the next day.

Detachment of Company D (9 enlisted men) arrived at Fort Missoula, Mont., August 14, 1899, from Fort Harrison, Mont., relieving a similar detachment which returned to Fort Harrison the same day.

Detachment of Company D (1 noncommissioned officer and 8 privates) from Fort Harrison, Mont., arrived at Fort Missoula, Mont., July 18, 1900, relieving a similar detachment which left for station at Fort Harrison July 19, 1900.

FORTY-FIFTH U. S. VOLUNTEER INFANTRY.

This regiment was organized at Fort Snelling, Minn., under the act of Congress approved March 2, 1899, in compliance with General Orders, No. 150, series of 1899, headquarters of the Army. Col. Joseph H. Dorst, major, Second Cavalry, U. S. A., who was appointed colonel of the regiment by the same order, arrived at Fort Snelling August 28, 1899, and proceeded with the organization of the same.

The regiment, with the exception of Companies L and M, which were organized at Vancouver Barracks, Wash., was encamped on the reservation at Fort Snelling until October 22, 1899, when it left for San Francisco, Cal., with 36 officers and 1,100 enlisted men.

PRACTICE MARCHES.

FROM FORT MEADE, S. DAK.

Troop G, First Cavalry (80 enlisted men), under command of Capt. George W. Goode, First Cavalry, left post September 20, 1899, and marched by a circuitous route through the northern part of South Dakota to Camp Crook on the Little Missouri River, returning to station via Macy, S. Dak., October 3, 1899. The men were instructed in advance and rear guard, outpost duty, the details of making and breaking camp, and general routine duties in the field. Distance marched, 317 miles.

Troop H, First Cavalry (74 enlisted men), under command of Capt. George S. Hoyle, First Cavalry, left post October 6, 1899, and marched to Hot Springs, S. Dak., returning to post October 20, 1899. Instruction, both theoretical and practical, was given the troop in advance guard, outpost duty, pitching and striking tents, camp hygiene, saddling, packing saddles and kits, and care of horses' backs in the field. Distance marched, 194 miles.

Troop I, First Cavalry (77 enlisted men), under command of First Lieut. Samuel B. Arnold, First Cavalry, left post November 2, 1899, and marched to Devils Tower, Wyo., returning to station November 16, 1899. During the march instruction was given in the care of horses, making and breaking camp, and minor tactics. Distance marched, 195 miles.

FROM FORT YATES, N. DAK.

A detachment of Troop D, First Cavalry (65 enlisted men), under command of Second Lieut. James D. Tilford, First Cavalry, left post July 20, 1899, and marched to Bull Head Agency, on the Grand River, South Dakota, returning to post July 23, 1899.

A detachment of Troop D, First Cavalry (2 officers and 65 enlisted men), under command of Capt. Herbert E. Tutherly, First Cavalry, left post October 7, 1899, and marched to Blackfoot Creek, North Dakota, returning to station October 9, 1899. Distance marched, 46 miles.

A detachment of Troop D, First Cavalry, under command of First Lieut. Charles B. Drake, First Cavalry, left post May 5, 1900, and marched to Hump Butte, N. Dak., returning to post via the Cannon Ball River, May 10, 1900.

MISCELLANEOUS.

Camp Bacon, which was established at Walker, in the northern part of Minnesota, October 23, 1898, during the Indian disturbances in the vicinity of Leech Lake, was garrisoned by Company G, Third U. S. Infantry, until January 10, 1899, when it was relieved by Company A, Seventh U. S. Infantry. The latter company having been selected by the War Department for duty in Alaska, was relieved from duty at Camp Bacon on May 28, 1900, and left for Seattle, Wash., same date.

There being no further necessity for maintaining troops at that point, the camp was thereupon abandoned, under authority of the Secretary of War contained in telegram from the Adjutant-General's Office, dated April 27, 1900.

Camp Merritt, Montana, a subpost of Fort Keogh, Mont., at the Tongue River Indian Agency, has been garrisoned by a detachment of 3 noncommissioned officers and 22 privates from Troop F, First Cavalry, stationed at Fort Keogh. The detachment has been relieved periodically by a similar detachment from that troop.

Attention is respectfully invited to the accompanying reports of the chiefs of the staff departments at these headquarters.

Very respectfully,

JAMES F. WADE,
Brigadier-General, U. S. A., Commanding.

REPORT OF BRIG. GEN. H. C. MERRIAM, U. S. A., COMMANDING DEPARTMENT OF THE COLORADO.

HEADQUARTERS DEPARTMENT OF THE COLORADO,
Denver, Colo., August 1, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit annual report of the affairs and administration of this geographical department.

TROOPS.

The troops remaining on duty in this department are: One troop First Cavalry; four troops Fifth Cavalry; four troops Ninth Cavalry; one company Seventh Infantry; one company Tenth Infantry; four companies Twenty-third Infantry; one company Twenty-fifth Infantry, and 41 Indian scouts. Their distribution is shown in the following table:

Stations of troops.

Posts.	Commanding officers.	Troops.
Fort Apache, Ariz.	Capt. L. W. Cornish, Ninth Cavalry	Troops L and M, Ninth Cavalry.
Fort Douglas, Utah	Lieut. Col. R. I. Eskridge, Twenty-third Infantry.	Companies I and L, Twenty-third Infantry.
Fort DuChesne, Utah	Maj. M. B. Hughes, Ninth Cavalry	Troops I and K, Ninth Cavalry.
Fort Grant, Ariz.	Maj. C. L. Cooper, Fifth Cavalry	Troops B and D, Fifth Cavalry.
Fort Huachuca, Ariz.	Capt. A. C. Macomb, Fifth Cavalry	Troop A, Fifth Cavalry.
Fort Logan, Colo.	Capt. J. D. Leitch, Twenty-fifth Infantry.	Company D, Seventh Infantry, and G, Twenty-fifth Infantry.
Fort Mackenzie, Wyo.	First Lieut. Douglas Settle, Tenth Infantry.	Company L, Tenth Infantry.
Fort Russell, Wyo.	Capt. W. H. Allaire, Twenty-third Infantry.	Companies K and M, Twenty-third Infantry.
San Carlos, Ariz.	Subpost to Fort Grant, Ariz.	Detachment 10 men from Fort Grant.
Fort Washakie, Wyo.	First Lieut. Clough Overton, First Cavalry.	Troop E, First Cavalry.
Fort Wingate, N. Mex.	First Lieut. N. F. McClure, Fifth Cavalry.	Troop C, Fifth Cavalry.

Indian scouts: Forts Apache, 10; Grant and San Carlos, 11; Huachuca, 15; Washakie, 1, and Wingate, 4. Total, 41.

The main object in fixing upon the foregoing as the distribution for troops serving in this department has been to secure the most effective supervision of the various tribes of Indians located on their reservations, as shown by the following table:

Indian agencies and agents in this department and approximate number of each tribe.

Agency.	Agent.	Post-office.	Telegraph station.	Tribes.	Num-ber.	Total.
Colorado River.	Chas.S.McNichols.	Parker, Yuma County, Ariz.	Yuma, Ariz.	Mojave	668	2, 158
				Mojave, at Needles	650	
				Mojave, at Fort Mojave.	700	
				Chimehuevis	140	
Hualapai	Henry P. Ewing, industrial teacher.	Hackberry, Ariz.	Hackberry, Ariz.	Hualapai	511	761
				Hava Supai	250	
Navajo.	Geo. W. Hayslet.	Fort Defiance, Ariz.	Gallup, N. Mex.	Navajo	20, 500	22, 550
				Moqui Pueblo	2, 050	
Pima.	Elwood Hadley.	Sacaton, Pinal County, Ariz.	Casa Grande, Ariz.	Pima	4, 260	7, 870.
				Maricopa	340	
				Papago	1, 224	
				Papago Nomadic.	2, 046	
San Carlos.	Capt. W. J. Nicholson, Seventh U.S. Cavalry.	San Carlos, Ariz.	San Carlos, Ariz.	Coyotero Apache..	647	3, 402
				San Carlos Apache	1, 298	
				Tonto Apache	868	
				Mojave	562	
				Yuma	42	
White River..	A. A. Armstrong.	Fort Apache, Ariz.	Fort Apache, Ariz.	White Mountain..	1, 849	1, 849
Southern Ute.	Jos. O. Smith.	Ignacio, La Plata County, Colo.	Ignacio, La Plata County, Colo.	Moache	272	1, 159
				Capote	193	
				Wiminnuchee Ute.	694	
Mescalero, Apache.	Walter McM. Luttrell, acting.	Mescalero, Otero County, N. Mex.	Tularosa, N. Mex.	Mescalero Apache	440	440
Pueblo.	N. S. Walpole.	Santa Fe, N. Mex.	Santa Fe, N. Mex.	Pueblo	8, 961	9, 792
				Jicarilla Apache..	831	
Uintah and Ouray.	Howell P. Myton.	White Rocks, Uintah County, Utah.	Fort DuChesne, Utah.	Uintah Ute	471	1, 716
				White River Ute..	370	
				Uncompahgre Ute	846	
				White River Ute..	29	
Shoshone.	H. G. Nickerson.	Shoshone Agency, Fremont County, Wyo.	Fort Washakie, Wyo.	Shoshone (or Snake). Northern Arapahoe.	842	1, 648
					806	

NOTE.—The area of this department is 522,385 square miles; of this there are 36,642 square miles of Indian reservations. Population: White, 880,983; Indian, 53,345.

It will be observed that nearly all of the posts are placed on or in the immediate vicinity of large reservations. The exceptions, Forts Douglas, D. A. Russell, and Logan, are at important railroad centers, rendering their garrisons quickly available for emergencies in any direction.

INDIANS.

The Indians within the department have continued at peace and have made advancement in agriculture and stock raising under good management, so that troops have been actually called out but three times, viz, from Fort Wingate in August, Fort DuChesne in November, and Fort Grant in April. In all of these cases the difficulty arose between individual white men and Indians, generally

through cards and whisky, and white men were the aggressors. No general friction resulted.

The call from Fort Huachuca resulted also through cards and whisky, between cowboys on the American side and Mexicans. One American was shot near the line by Mexicans after his arrest, and threats of retaliation were made by the American cowboys, but the prompt appearance of troops and judicious action by Capt. H. H. Wright, Ninth Cavalry, their commander, prevented further violence.

On March 2, 1900, General Torres of the Mexican army, and in pursuit of Yaqui Indians, reported that several parties of Yaquis were making toward the American line, apparently intending to cross. The troops at Huachuca were placed in readiness for instant action to apprehend and disarm any who might cross the line, but no crossing was made.

Another quarrel between a small party of white men and Indians, supposed to be Navajos, occurred on November 13, 1899, at Canyon Diablo, Arizona, over a dispute about ownership of a horse, in which 1 white man and 2 Indians were reported killed and some on both sides wounded. The troops at Wingate and Grant were held ready for instant support of the sheriff, but he was able to handle the matter without assistance, no general or tribal animosity being aroused.

In my tour of inspection I was impressed by the excellent progress being made toward civilization by the Apaches, under the excellent management of Capt. W. J. Nicholson, Seventh Cavalry, along the Gila River, with agency at San Carlos. I found them largely and successfully engaged in agriculture, and saw large numbers of men, as well as women, at work in the fields—most unusual for Indians. I was also told by railroad officials that they could not employ better men for railroad labor than those Apache Indians. In view of these facts and of the assurance by Captain Nicholson of the absolute loyalty and efficiency of his Indian police, I recommended the withdrawal of all the troops from San Carlos Agency instead of repairing that post.

THEORETICAL INSTRUCTION.

Schemes for theoretical instruction were prepared and approved, as required by Army Regulations 230, and the work accomplished is shown by Appendices C and D. From these reports it is manifest that renewed interest in the lyceum method of professional study has resulted from the many subjects presented by a state of war under modern conditions, and all to the great advantage of the service.

PRACTICAL INSTRUCTION.

A progressive course of practical instruction was prepared and ordered, as required by Army Regulations, covering small-arms practice, signal instruction, litter bearers, and first-aid drill, as well as close and extended order drills, calisthenic and gymnastic training, and also provided for instruction in minor tactics and field problems suited to the organizations and their local conditions.

This course is now being carried out, as shown by the monthly reports received, and as fully as can be expected in view of the frequent changes of garrisons and other disadvantages incidental to a state of foreign war, and the necessary subordination of the home service to its interests.

In addition to the usual service, twenty-three companies have been prepared and sent abroad from this department for service in the Orient. This work involves a transformation. Weakly men and those near the close of terms must be withdrawn and others supplied by transfer enlistment. The required changes of mounts and equipment are equally sweeping, while to all this must be added the many transfers of public property and supplies at posts resulting from the changes of garrisons.

DESTRUCTIVE FIRES.

Destructive fires have occurred in the department as follows:

Fort Washakie, December 1, destroyed gymnasium built by labor of troops.

Fort Wingate, December 5, destroyed post sawmill; loss, \$6,000.

Fort Du Chesne, December 8 and 13, destroyed barracks of Troops I and K, Ninth Cavalry; cost unknown.

Fort Grant, March 20, destroyed commanding officer's stable; cost unknown.

Fort Apache, June 15, destroyed about 400 tons of hay; loss, about \$3,000.

By the heroic conduct of the troops all of these fires were limited to the buildings first ignited. In some cases the fire systems were reported as inadequate or ineffective, and the question of their improvement has received due attention.

There are many things to be considered in this connection, such as sufficiency of water supply, the pressure to be obtained in mains, and whether by gravitation or by pumping plants, etc. The present means have been provided from time to time—piecemeal and by different officers—and it is not strange that they are found more or less defective in the opinions of still other officers, and especially in reporting on fires calling for explanation.

In some cases the reports have omitted to acknowledge the aid so derived in preventing the spread of the fire to other buildings. On this subject it should be noted that old wooden buildings, and especially unpainted shingle roofs, as well as everything combustible, become practically as inflammable as gunpowder under the influence of the hot sun in this semidesert region, and it is doubtful if, with the best appliances, any of the buildings lost could have been saved.

If the destructive cigarette could be abolished, with the careless use of matches, it would do more toward safety than the best fire apparatus.

Measures are now in progress looking to improvements in fire appliances at Forts Du Chesne, Washakie, and Wingate.

The excellent conduct of officers has been noteworthy and universal. My thanks are especially due to each member of my personal and department staff for uniform zeal and efficiency in the discharge of every duty.

Very respectfully, your obedient servant,

H. C. MERRIAM,
Brigadier-General, U. S. A.

REPORT OF MAJ. GEN. WILLIAM B. SHAFTER, U. S. VOLUNTEERS, COMMANDING THE DEPARTMENT OF CALIFORNIA.

HEADQUARTERS DEPARTMENT OF CALIFORNIA,
San Francisco, Cal., September 14, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit the following report for the Department of California for the year ending August 31, 1900, during which time I have commanded the department:

Affairs connected with the military service have generally moved satisfactorily. There have been but few troops for duty in the department, and they have been fully employed in caring for and guarding the public property at their respective stations, so that it has been impossible to have any military exercises beyond the instruction of recruits, and of men in small bodies, not larger than a company. During this year there have been shipped through this city 1,368 officers and 39,003 enlisted men; and returned to the United States, volunteers and regulars, 709 officers and 13,291 enlisted men, making a total of 2,077 officers and 52,294 enlisted men. This includes 42 officers and 1,116 men of the Marine Corps, 5,857 recruits, 1,030 men of the Hospital Corps, and 161 men in the Signal Corps. There have also been shipped to the Philippines and China 5,131 horses and mules. This great number of men has been rapidly and safely transported to and from this department without the loss of a single human life and but very few animals. This fact speaks volumes for the painstaking care exercised by the officers having the matter of transportation in charge. Just prior to the return of the volunteers from the Philippines last year, a camp was established at the Presidio for their reception, and also for the recruits going out. This camp has been preserved and used by the troops going out recently, and will be ready for the use of those soon to return. The health of this camp has been phenomenal. With the exception of a few cases of smallpox, scarlet fever, and measles, there has been no serious sickness. Among the large number of recruits that were at the Presidio last fall, 12,000 at one time, there were not more than half a dozen cases of typhoid fever, none of which originated here. I attribute this to the good judgment exercised in selecting the grounds, and to the care and attention given to the proper sanitation of the camp, which was done under the charge of medical officers specially detailed for that purpose, notably, Col. Charles R. Greenleaf, assistant surgeon-general, and Capt. James M. Kennedy, assistant surgeon.

Attention is called to the very low death rate for the department, which is only 4.18 per thousand for the entire department outside of the general hospital, as against 6.63 per thousand for the previous year. Deaths from disease, 2.92 per thousand; previous year, 6.12. The percentage at the general hospital is 14.39 per thousand admissions, a rate less than that in the city of San Francisco.

Referring to the report of the chief surgeon, I have to say that so far there has been no difficulty in properly caring for all the sick that have arrived here and that recently additional provision has been made by the erection of tents capable of holding from 250 to 300 more. The

general hospital at the Presidio is a most thoroughly equipped and ably conducted establishment.

Attention is especially invited to that part of the report of the chief surgeon which refers to the medical examination of men upon muster out, showing the large number of men claiming disability in which none was found; also the large number claiming disability which was found not to have been contracted in the line of duty.

Attention is invited to the arduous and exacting duties of the pay department during the past year, which was most satisfactorily performed.

Since the departure of the four batteries, Third Artillery, for Manila, and until the return of the four batteries now there, it will be impossible to do more than keep the guns clean; this it is possible to do with the force now here. The increase in the number of guns in the permanent fortifications makes it absolutely necessary that a considerably larger force of artillery should be stationed in this harbor. There should be at least, for the proper care of the guns and emplacements, one battery at Angel Island, two at Fort Baker, three at Presidio, one at Fort Miley (Point Lobos), and one at San Diego.

The report of the judge-advocate shows a considerable number of trials for the number of men stationed in the department, but when it is taken into consideration that a large number of these trials were of men belonging to regiments passing through, it is remarkably small, and the offenses are not serious.

The work of the quartermaster's department has been very great and has been most efficiently performed. I desire to especially invite the attention of the Adjutant-General of the Army to the large number of animals, horses and mules, that have been purchased in the open market by the chief quartermaster, Colonel Marshall, in person and by other officers. In my opinion it is the best and most economical way to make purchases. It has proved eminently satisfactory here, and in one case, where the contractor, Mr. White, failed to complete deliveries under his contract, instead of calling upon his bondsmen horses were purchased by the quartermaster at about \$10 per head less than the contract price.

The practice which was recently inaugurated of making contracts for forage for short periods of time, at present quarterly, has so far worked advantageously to the Government, and I believe it will probably be found at the end of the year to have been advantageous to the Government.

In the engineer's department there has been little work to do.

The report of the signal officer shows that considerable work has been done in the harbor in connecting the posts and various batteries by wire. The system of wireless telegraphy between Fort Mason and Alcatraz has been satisfactorily operated, but I doubt its practicability.

The reports of officers in charge of the various staff departments are herewith inclosed.

I desire to say that every officer has performed his duty to my entire satisfaction, and that they have been constant and painstaking in the discharge of their various and important duties, and all are deserving of this commendation. In this I wish to include the depots of the quartermaster and commissary departments, who have performed so satisfactorily the great work set to them.

The great amount of work forced upon the clerical force of the adjutant-general's department through the numerous inquiries made by friends and relatives as to soldiers or their families, all of which have been replied to, although considerable labor and time has been expended in obtaining the information desired, and the great number of troops passing through, with the returns and reports made necessary thereby, all these have much increased the work of that department, and the clerks have worked many times long after the usual office hours, and without complaint. For this and their intelligent and efficient services they are deserving of commendation. The office force has been ably managed by the chief clerk, Mr. Vibart, and I desire to place upon record the fact that, in my opinion, he is well qualified for a higher clerical position than he has at these headquarters.

Very respectfully,

WM. R. SHAFTER,
Major-General, U. S. Volunteers, Commanding.

REPORT OF MAJ. GEN. WILLIAM R. SHAFTER, COMMANDING THE DEPARTMENT OF THE COLUMBIA.

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Wash., August 31, 1900.

ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

SIR: I have the honor to submit the following report of operations in this department for the year ending June 30, 1900:

Pursuant to instructions from the War Department the troops stationed at Wallace and Osborne, Idaho, under the command of Brig. Gen. H. C. Merriam, consisting of one troop, L, First Cavalry, and detachments of Troops E and H, Sixth Cavalry, were relieved by a company of the Seventh Infantry under command of Captain Goodin of that regiment during the early part of the month of June last, when the direction of affairs in the Cœur d'Alene district reverted to this command.

DEFENSES ON PUGET SOUND.

There are four 10-inch guns and sixteen 12-inch mortars mounted at Fort Casey and four 10-inch guns mounted at Fort Flagler. The engineer officer in charge of the defenses on Puget Sound reports under date of June 4 as follows:

There is under course of construction at the present time a mortar battery and emplacements for two 5-inch rapid-fire guns at Fort Worden. The mortar battery will contain sixteen 12-inch mortars. Both the mortar battery and the rapid-fire battery will be completed about August 1. At Fort Casey emplacements for two 5-inch rapid-fire guns are under construction. These emplacements will also be completed about August 1. At Fort Flagler there has been constructed, during the past year, two emplacements for 5-inch rapid fire guns. At Bean Point, which is on the main passage to Port Orchard, there are under construction emplacements for three 8-inch rifles, two 5-inch rapid-fire guns, and six 15-pounder rapid-fire guns. At Middle Point, on the opposite side of Richs Passage, there are two 15-pounder rapid-fire guns. All the emplacements at Bean Point and Middle Point will be completed by January 1, 1901.

There are now completed at Fort Flagler 4 officers' quarters, 1 barracks, administration building, guardhouse, bakery, blacksmith and

carpenter shop, stable, fuel sheds, quartermaster and commissary storehouse, 2 noncommissioned officers' quarters, hospital and steward's quarters; under construction, 4 officers' quarters, 1 barracks.

At Fort Casey, 2 officers' quarters, barracks and commissary storehouse completed.

The buildings at Fort Lawton (Magnolia Bluff) referred to in my last report as being in course of construction have been completed. There are still lacking the following buildings to complete a two company post, to wit: One administration building, 1 guardhouse, 1 bakehouse, 1 workshop, and quartermaster's stables.

DEFENSES AT MOUTH OF COLUMBIA RIVER.

Upon the arrival and mounting of four 3-inch rapid-fire guns, which is indefinite, the armament at Fort Stevens will be complete and consist of as follows: Four 10-inch rifles, disappearing carriage; two 10-inch A. R. F. guns; eight 12-inch B. L. steel mortars; two 6-inch rifles, disappearing carriage; four 6-inch rapid-fire guns.

The quartermaster and commissary building for the new post is complete and occupied; the remaining buildings will not be completed until about September 1, 1900; the sewerage system, water plant, and grading will not be complete until considerably later. The constructing quartermaster reports that the post will not be ready for occupancy until November 1, 1900.

At Fort Columbia, Wash., there are three 8-inch rifles, one not mounted owing to nonreceipt of carriage. No buildings. Armament cared for by detachment from Fort Stevens.

Fort Canby, Wash., garrisoned by a detachment from Fort Stevens. No modern armament.

FORT SHERMAN, IDAHO.

The abandonment of this post is progressing, and the final disposition of the large accumulation of public property thereat will be completed and the detachment, Twenty-fourth Infantry, withdrawn about September 1 next.

ALASKA.

At the beginning of the present year this Territory was withdrawn from the limits of this department and created a separate military department. The troops stationed at Skagway and Valdez, Alaska, have since been attached to this department for the purpose of payment and supply.

CHANGES OF TROOPS, ETC.

For a detailed statement of the changes and movements of troops in this department and from this department during the year, attention is respectfully invited to Exhibit 2 of Appendix A.

The reports of the various department staff officers are set forth in the appendixes hereto attached.

WM. R. SHAFTER.

Major-General, U. S. Volunteers, Commanding Department.

REPORT OF BRIG. GEN. GEORGE M. RANDALL, U. S. V., COMMANDING DEPARTMENT OF ALASKA.

HEADQUARTERS DEPARTMENT OF ALASKA,

Fort St. Michael, Alaska, September 20, 1900.

THE ADJUTANT-GENERAL OF THE ARMY,

Washington, D. C.

SIR: I have the honor to submit the following report of the military affairs and conditions in this department from the date of its establishment to the present time:

The Department of Alaska was created by General Orders, No. 8, Adjutant-General's Office, January 19, 1900, with headquarters at Fort St. Michael. I remained in Washington, D. C., until February 21, consulting with the Secretary of War and chiefs of bureaus of the War Department, and attending to the numerous details in connection with the organization of the department, which, owing to its isolated geographical situation, presented many phases wholly different from any other of our geographical departments.

Headquarters were temporarily established at Seattle, Wash., on March 15, pursuant to the same order, pending the opening of navigation, and the interim was spent in completing the organization of the several staff departments and in procuring and shipping supplies.

The following-named officers were selected and have reported for duty as personal and departmental staff:

PERSONAL.

First Lieut. Howard R. Hickok, Ninth Cavalry, aide-de-camp.

DEPARTMENTAL.

Maj. W. F. Tucker, Pay Department, chief paymaster.

Maj. R. G. Ebert, surgeon, Medical Department, chief surgeon.

Maj. Gonzalez S. Bingham, quartermaster, U. S. V., chief quartermaster.

Maj. Frank Greene, signal officer, U. S. V., department signal officer.

Capt. H. E. Tutherly, First Cavalry, acting inspector-general.

Capt. W. R. Abercrombie, Second Infantry, engineer officer.

Capt. W. P. Richardson, Eighth Infantry, acting adjutant-general.

Capt. E. S. Walker, Eighth Infantry, chief commissary.

First Lieut. Walter A. Bethel, Third Artillery, captain and acting judge-advocate.

Capt. W. R. Abercrombie, Second Infantry, and First Lieut. Walter C. Babcock, Eighth Cavalry, reported to the department commander in person in Washington, pursuant to paragraph 17, Special Orders, No. 25, current series, Adjutant-General's Office, and were assigned to the work of continuing the construction of military road from Port Valdez to Eagle City, Alaska. Captain Abercrombie had been engaged upon the exploration and construction of this route for the two preceding summers, his expedition being known as the "Copper River exploring expedition." His party is now officially designated as the "Trans-Alaskan military road detachment, Port Valdez to Eagle,

Alaska," and, as stated above, is in direct continuation of work done by him during the two preceding years. Captain Abercrombie's party left Seattle on March 17 for Port Valdez. A full report of the season's work will not be received at these headquarters in time to go forward before the close of navigation, but partial reports from him up to date show that fair progress is being made, and that the route selected will probably be open its entire length by the end of next year.

Company G, Seventh Infantry, Capt. James B. Jackson commanding, arrived at Seattle April 22 and left the following day on transport *Rosecrans* for station at Valdez. A report just received from Captain Jackson shows that the troops are all housed and the buildings well on toward completion.

Companies A, B, I, and K, Seventh Infantry, arrived at Seattle May 30 and were assigned, A and K to transport *Rosecrans*, leaving June 2 for station at Nome, and Companies B and I to transport *Laroton*, leaving the evening of June 6 for station at Fort St. Michael.

The department commander, accompanied by the acting adjutant-general, chief surgeon, acting judge-advocate, and his aide-de-camp, left Seattle for Nome on transport *Seward* the morning of June 6. The remaining officers of the staff proceeded on board transport *Laroton* for station at Fort St. Michael.

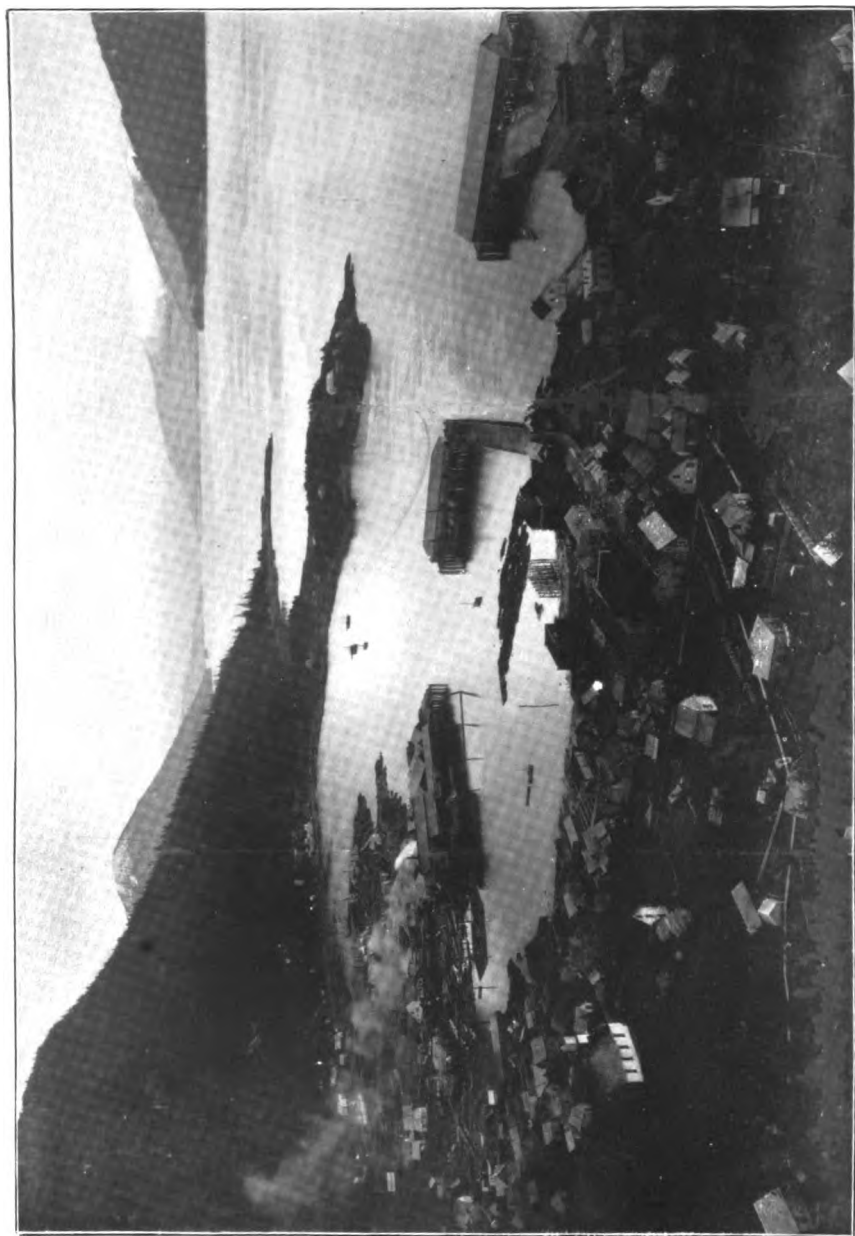
Upon arrival at Dutch Harbor on June 14 it was discovered that difficulty had been encountered in trying to push through the ice fields in Bering Sea by ships in their eagerness to arrive at Nome at an early date. Several vessels had been compelled to return to Dutch Harbor.

The *Seward* proceeded on her journey from Dutch Harbor about 10 p. m. June 16, but encountering ice which compelled her to sail out of her course, she did not arrive at Nome until 1 a. m. June 21.

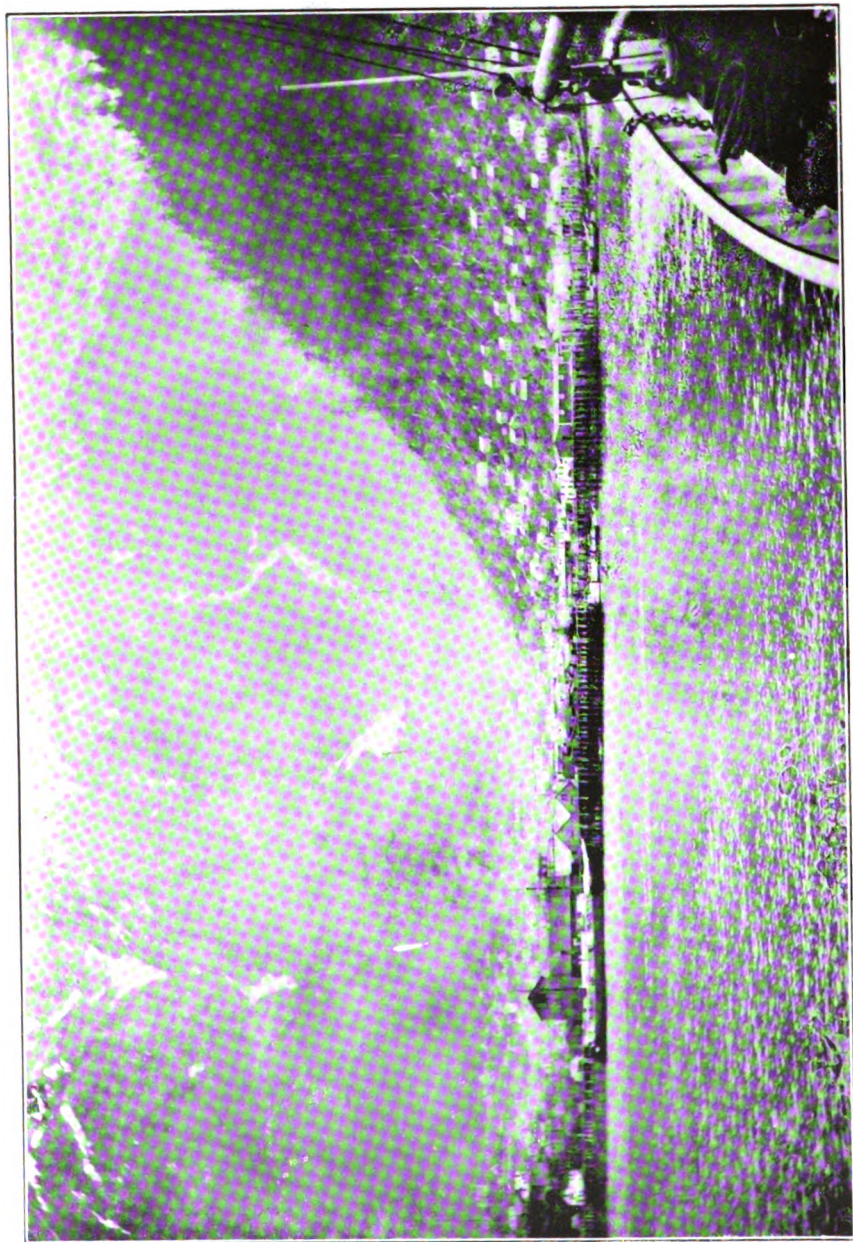
It was discovered at Nome that the *Rosecrans* had been, in her attempts to escape the ice, forced to take a course too near to the coast off the mouth of the Yukon and had grounded in that vicinity on the morning of June 15. Information was received at the same time that she had gotten off on the morning of June 18 without any serious damage. She finally arrived at Nome on June 28, having been compelled to return to Dutch Harbor for coal.

The situation at Nome upon my arrival was approaching the critical stage. In the United States commissioner's court it was difficult to obtain conviction by jury trial, which emboldened the lawless in their unlawful acts and added to the difficulty of handling the situation. Labor organizations, preventing men from working for less than \$1 per hour, were the cause of much destitution and want, threats of violence, and destruction of property.

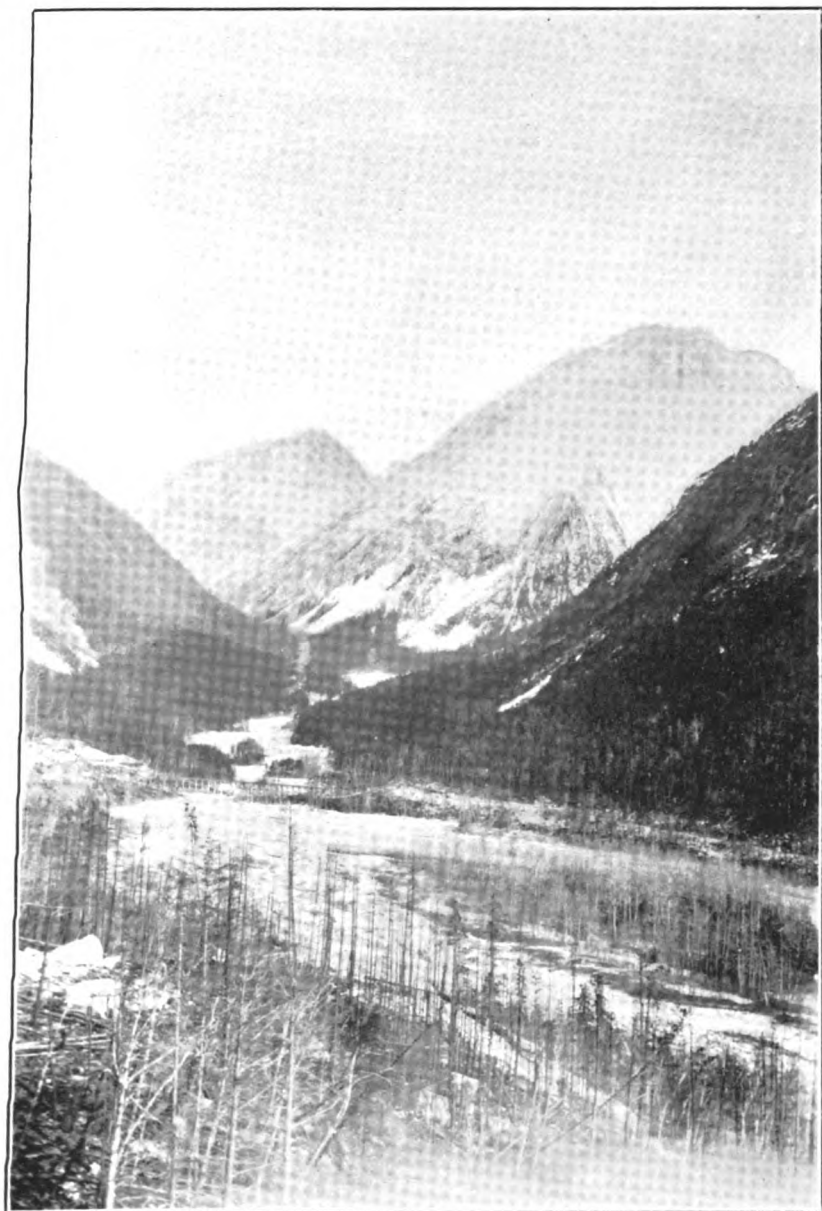
No representation could have held people back from Nome. Fully 18,000 people, lured by reports of fabulous wealth in the district, arrived during the month of June. The beach east and west of the town at the time of my arrival was lined with tents for about 8 miles. A great many people came for the purpose of locating in permanent business, others to work the beach and tundra, and still another class to work their fellow-man. This last class was probably the most numerous and certainly the most industrious of all. Supplies and machinery of all descriptions could be seen upon the beach. Claim jumping was the order of the day. Nearly everyone seemed to think he had a divine right to take possession of a claim or town lot wherever found. This course resulted in many disturbances, and some of a serious character. Many property owners were disposed to defend



FORT WRANGEL, ALASKA.



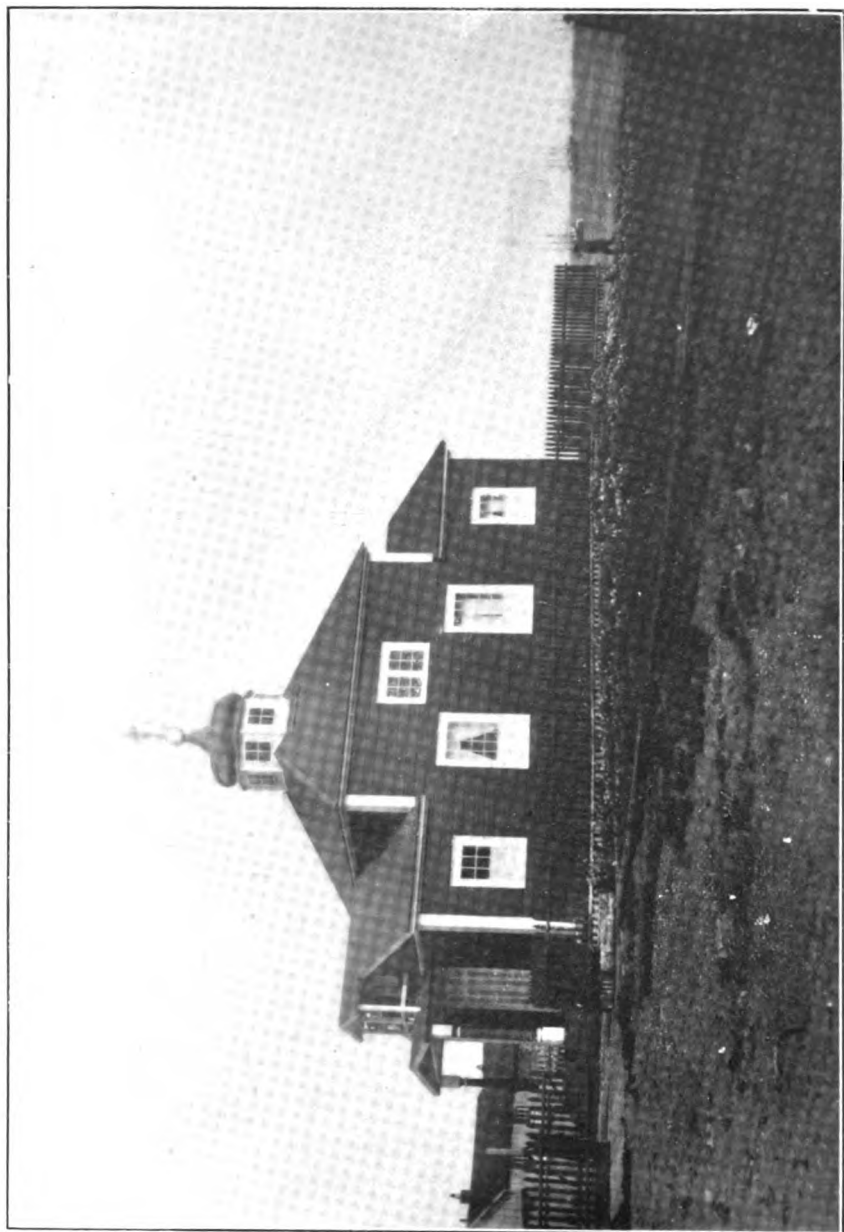
JUNEAU, ALASKA, THE TERRITORIAL CAPITAL, FROM THE WATER



CHARACTERISTIC SCENERY. WHITE PASS AND YUKON RAILROAD.



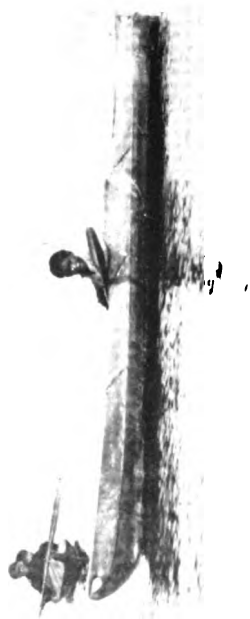
CHARACTERISTIC SCENERY, WHITE PASS AND YUKON RAILROAD.



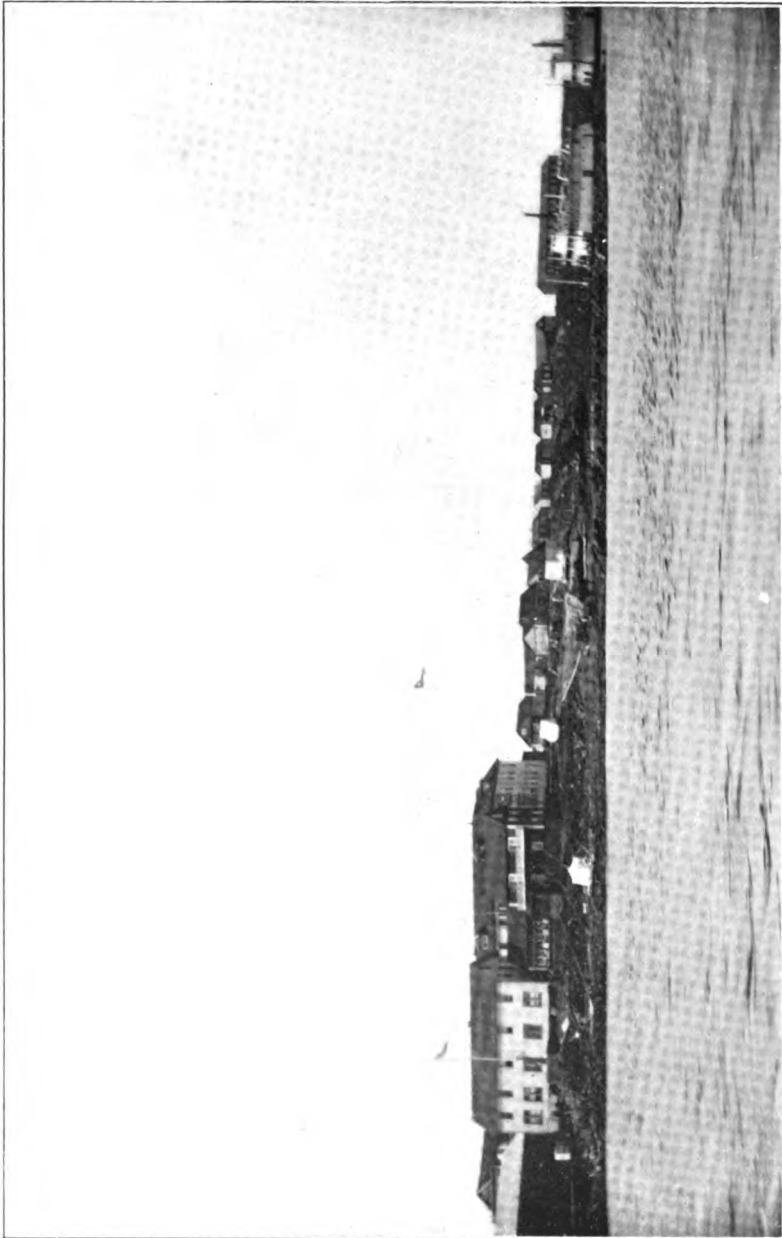
GREEK CHURCH, FORT ST. MICHAEL, ALASKA.



INNUIITS, FORT ST. MICHAEL, ALASKA, SHOWING NATIVE FUR "PARKA," OR WINTER SEAMLESS COATS, WITH HOOD.



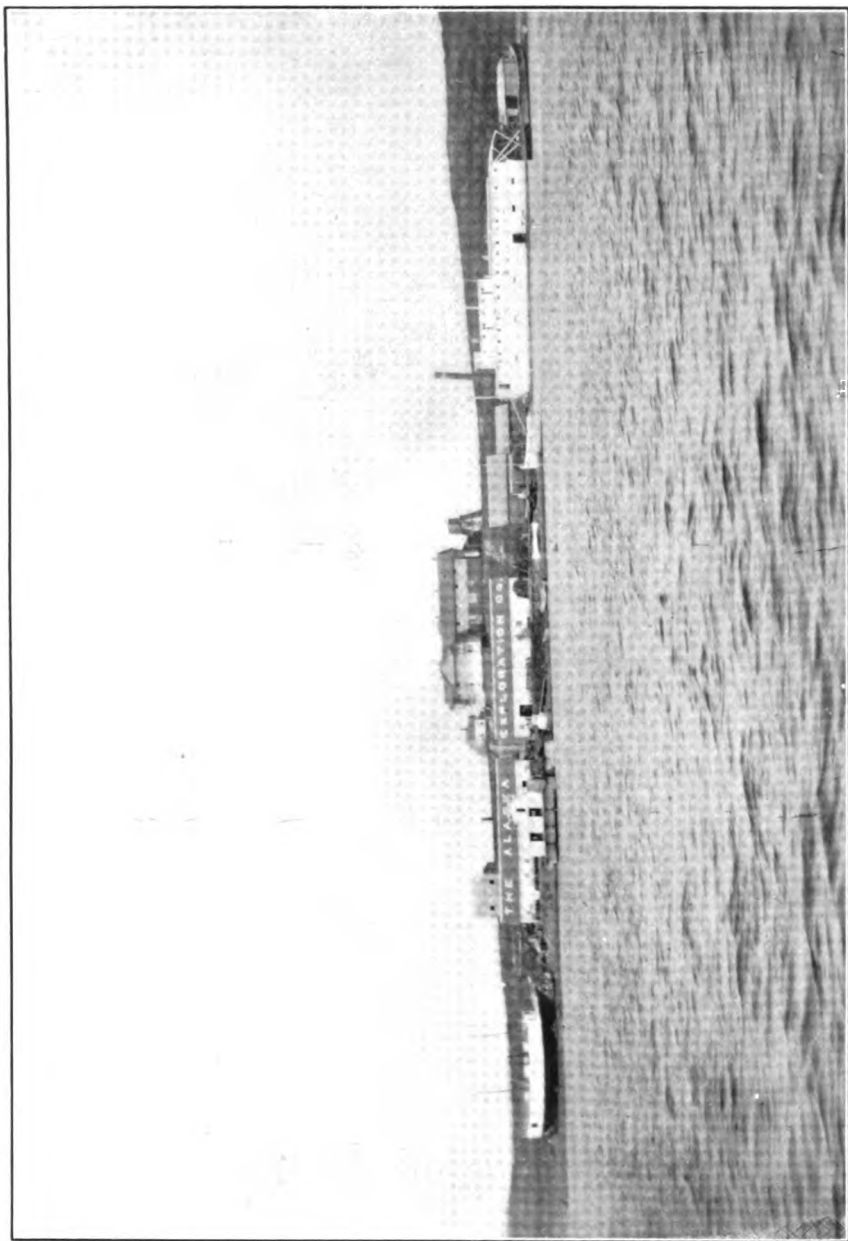
INNUIT CHILDREN IN KYAKS, FORT ST. MICHAEL, ALASKA.



PLANT OF ALASKA COMMERCIAL COMPANY, FORT ST. MICHAEL, ALASKA.



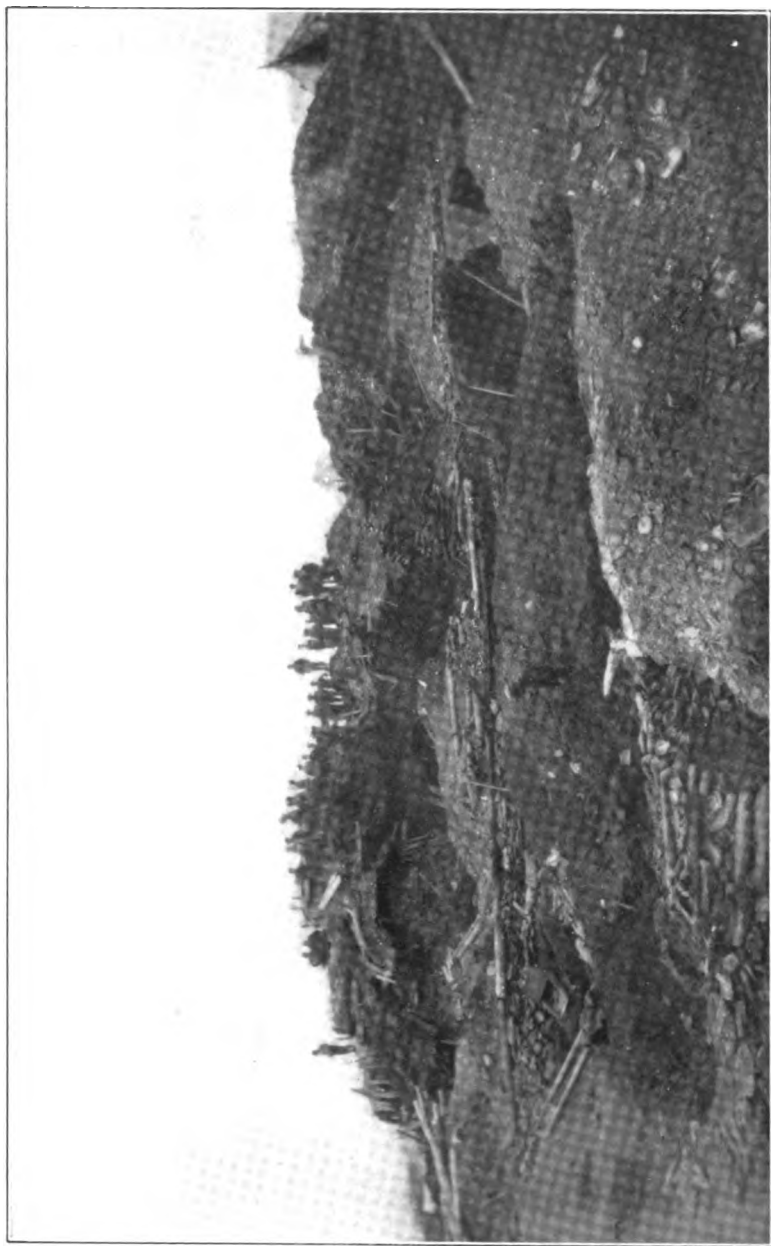
PLANT OF NORTH AMERICAN TRANSPORTATION AND TRADING COMPANY, FORT ST. MICHAEL, ALASKA.



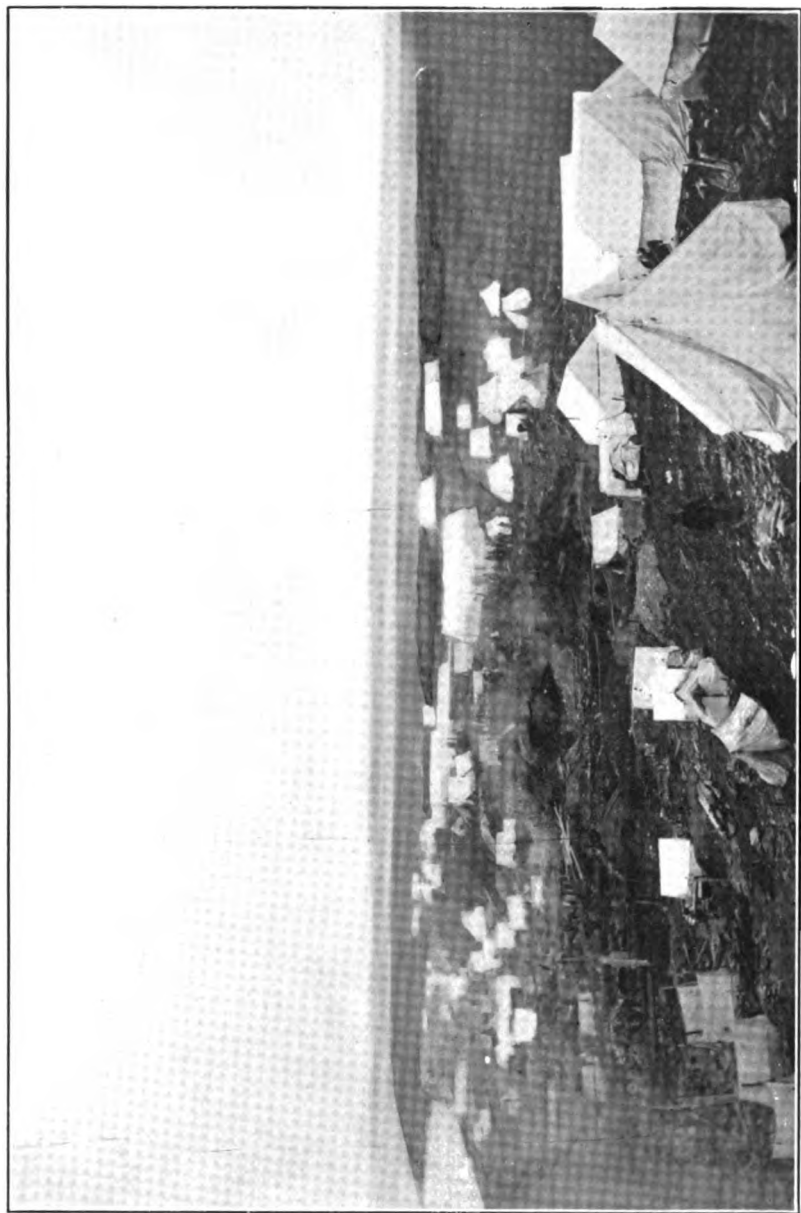
PLANT OF ALASKA EXPLORATION COMPANY, FORT ST. MICHAEL, ALASKA.



REMAINS OF "REDOUBT MICHAELOFSKY," FORT ST. MICHAEL, ALASKA.



PLACER DIGGINGS UNDERMINING NATIVES' HOUSES, BLUFF CITY, ALASKA. JULY 9.



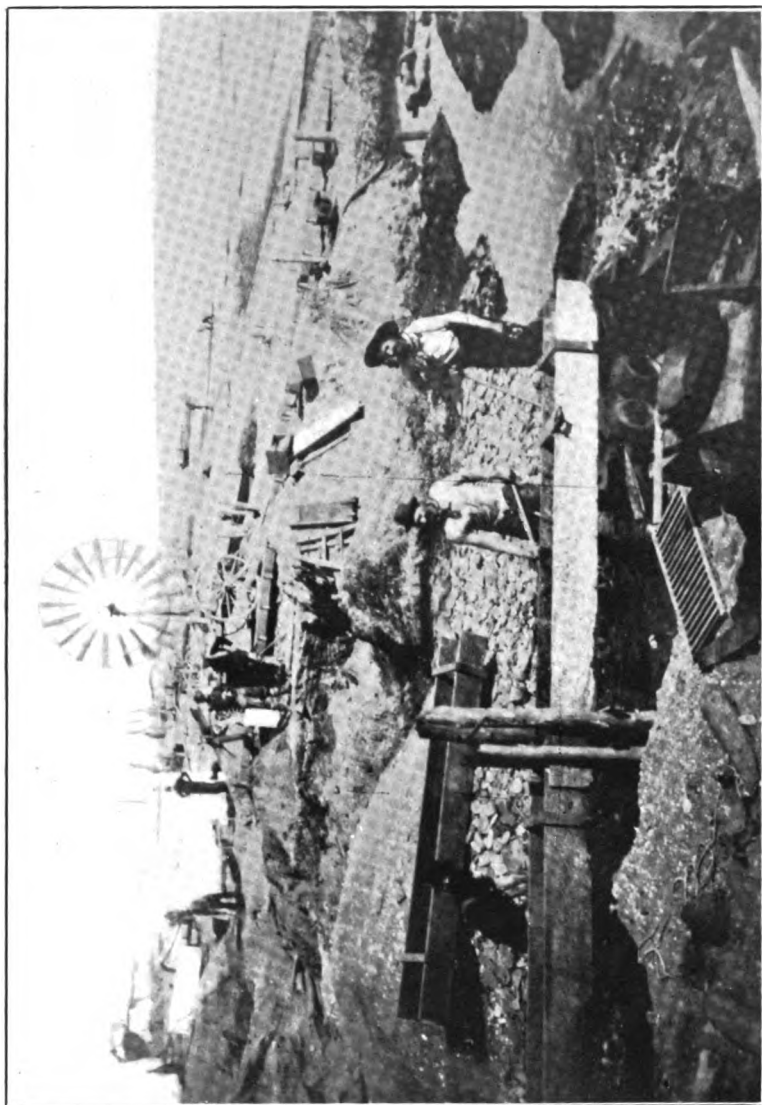
GENERAL VIEW, LOOKING WEST, BLUFF CITY, NEAR TOPKOK, ALASKA.



TOTEM POLE AND INDIAN GRAVE, FORT WRANGEL, ALASKA.



TOTEM POLES, FORT WRANGEL, ALASKA.



MINING ON THE BEACH, NOME, ALASKA.

their rights by taking the law in their own hands, and the timely arrival of additional troops averted bloodshed and probable serious disorder.

The chamber of commerce, realizing that the citizens were powerless to enforce law and order, made a united request upon the department commander to provide for the government of the camp in certain particulars until the arrival of the district court. This request was embodied in a resolution adopted by the chamber of commerce held June 24. On the 25th the military assumed control, and patrols were established throughout the town to preserve law and order and to protect life and property. Lieut. Wallace M. Craigie, Seventh Infantry, commanding 19 men of Company F, Seventh Infantry, stationed in Nome, was relieved June 29 by Capt. Charles G. French, Seventh Infantry, with Company K of that regiment.

Many complaints being made that property had been taken possession of unlawfully, Capt. W. A. Bethel, United States Army, acting judge-advocate of the department, was assigned to the duty of investigating the complaints until the arrival of the district court. After the complaints were thoroughly examined into, the rightful owner, where the issue could be determined, was placed in possession of the property. Captain Bethel deserves great credit for his ability in adjudicating these differences.

In order to provide for a systematic means of correcting the violations of sanitary requirements which prevailed to an alarming extent in the beginning, Maj. R. G. Ebert, surgeon, United States Army, chief surgeon of the department, was assigned to duty in charge of the sanitation of the town. Three citizen physicians were employed to act in conjunction with him in making daily inspections of public and private places to see whether or not the occupants had followed instructions relative to cleaning their premises. Under the most trying circumstances this duty was performed satisfactorily and the town was placed in as fair a sanitary condition as was possible.

Smallpox appeared early in the season. Fortunately, the disease was not of a virulent form. Twenty-four cases were reported in the hospital, with only one death. Vaccination was practiced as far as the virus on hand would allow. On discovering the first case, which arrived on the steamship *Oregon*, Lieut. D. H. Jarvis, United States Revenue Service, established a pest hospital on the tundra below the town. This was maintained until the disease was thoroughly checked. During the prevalence of smallpox at Nome a strict quarantine against that port and the adjacent coast was enforced at St. Michael to prevent the spread of the disease up the Yukon River. Lieut. J. C. Cantwell, United States Revenue-Cutter Service, in command of the steamer *Nunivak*, in St. Michael Harbor at this time, undertook the work of boarding incoming vessels and otherwise enforcing the quarantine restrictions. This duty he performed in a conscientious and wholly creditable manner.

There were at one time about 500 men working on the beach at Nome with machinery and rockers. Many were disinclined to answer questions as to their prospects. Many admitted that they were doing little or nothing, while others claimed they were taking out from \$4 to \$6 per day. The beach was practically worked out last year. The tundra is believed by some to be rich, but it will require large investments of capital to produce appreciable results.

There is a large area of country which has not been prospected where gold can probably be found, not in heaps on the surface, but scattered over the country awaiting the prospector. Speculators and people without knowledge or plan are bound to meet with disappointment and hardship. Men who have had experience and who have thought, planned, and prepared for definite work, will succeed in developing the unexplored part of the country. Many who had had no experience in mining, after investigation, wisely disposed of their supplies and returned to the States.

There were instances of financial disaster which had overtaken men who had purchased mining claims from parties in the East who had no title to the properties in question and no right to dispose of them.

Several steamship companies, realizing that large numbers of men and women were in straitened circumstances and anxious to return to their homes, reduced the rate of passage to Seattle to such a low figure that many hundreds left the country.

Anvil Creek, near Nome, continues to be the chief paying creek in the district. Some of the best properties, however, are in litigation, with receivers appointed to manage them.

Dredging is resorted to but little. In Bering Sea when there are no storms there is usually a heavy ground swell which prevents the successful use of dredges. There are one or two operating on Snake River and none on Nome River. Their utility, as well as their probable financial success, is a matter upon which I am not well informed.

Based on reports of unlawful and forcible seizure and holding of property at Bluff City, near Topkuk, on Norton Sound, about 44 miles east of Nome, I directed Capt. E. S. Walker, Eighth Infantry, to make an investigation of the case, and placed there Second Lieut. Hjalmer Erickson, Seventh Infantry, and a detachment of 12 men. It was found that about 30 men had unlawfully seized a very rich claim and were extracting gold in defiance of the lawful rights of the owners. They were also tunneling under houses owned and occupied by natives in violation of the natives' rights and to their great discomfort and hardship. Lieutenant Erickson and detachment remained at Bluff City for the protection of the lawful owners and the natives until the appointment of a receiver for the property by the district court.

Reports having been received of claim jumping on Golofnin Bay, First Lieut. Robert S. Offley, Seventh Infantry, was ordered with a detachment of 30 men to take station at Council City, on Fish River, tributary to Golofnin Bay, and enforce law and order. This detachment was withdrawn upon the arrival of the United States commissioner and marshal appointed for that place.

I inspected the vicinity of Topkuk, Port Clarence, and York. At Port Clarence the reservation declared by General Orders, No. 13, current series, Adjutant-General's Office, was surveyed and corner stakes located. The reservation includes the point of the sand spit of which Point Spencer is the northern limit and behind which, during the open season, there is good anchorage and a safe harbor against storms for vessels of all drafts. Port Clarence is the natural resort and harbor of refuge for whaling vessels voyaging to and from the Arctic Ocean. Military control of the sand spit will prevent its occupation by any person or corporation to the exclusion of all others. There is no present necessity for placing troops on this reservation.

The putative town of Teller, located on the northeast shore of Port Clarence, contained at the time of my visit about 75 people living in

tents with nothing of a permanent character about the place. Reports were of such conflicting character that it was difficult to make a correct estimate of the number of people in the surrounding country and of the prospects for gold. Conservative estimates placed the number of prospectors in the tributary country within 100 miles at about 200 to 500.

Reports just received from Port Clarence indicate a strike of importance in what is known as the Blue Stone district, but I am not possessed of accurate information on this subject; also that paying ground has been found on Quartz, Garfield, Harris, Goose, and Black Gulch creeks, all tributaries to the Kogurock River, emptying into Clarence.

At York there are probably about 200 people. The tributary country is small in extent, being confined to the basin of the Anakovok River, not over 10 miles long. Some paying placer deposits have been discovered on Deer and Duhner creeks.

At both Port Clarence and York the people were quiet and orderly. There were no civil authorities at either point, but no lawlessness was reported, and there seemed no necessity for troops.

Under date of April 18, I reported upon an inspection of troops stationed at Wrangel and Skagway, and on June 2 I recommended the establishment of a military post and reservation at the latter point and the erection of buildings similar in design to those authorized for Fort St. Michael and Nome. I consider it highly important that a permanent military establishment should be located in southeastern Alaska, and Skagway seems at present the most suitable place for its location, being the terminus of the White Pass and Yukon River Railway and the point of departure for most of the travel into the Yukon territory. I append hereto copy of report from Capt. Henry W. Hovey, Twenty-fourth Infantry, commanding Skagway, which has a bearing upon this subject.

Owing to the shortness of the season and the continuous need of my presence in this part of Alaska, I have been unable personally to inspect the posts along the Yukon River and the new post at Port Valdez. Reports of the inspector-general of the department upon the Yukon River posts show that the work of construction at those posts is progressing satisfactorily, and that the troops are in good health and well cared for.

A lyceum was conducted at Fort Gibbon during the past winter, and the essays submitted reflect credit upon the officers stationed there. No other post in the department had more than one officer for duty except Fort Egbert, where there were two, one being the district commander.

The permanent post at Nome was located about $3\frac{1}{2}$ miles from the town proper on the east side of Nome River and near its mouth. This site presented the fewest complications of any place within reach of the town and is as good as can be found on that exposed coast. It is a suitable distance from the town, and a plentiful water supply is assured from the Nome River. Troops will be withdrawn from the town of Nome as soon as the place is incorporated and a police force established.

After careful consideration of the locality of St. Michael Harbor it was decided to establish the permanent post on the island, and on the ground originally selected by me in the winter of 1897-98. There are several small lakes in the vicinity of the present location from which water has been drawn during the summer for general uses by

the commercial companies located here. This water is of fairly good quality and seems abundant, but is slightly discolored from being filtered through the tundra which covers the island. About 4 miles back on the island there are two or three quite large lakes, in which the water is perfectly clear and seems of excellent quality. A well is being sunk now near the post, with a fair prospect of success, as water has already appeared at a depth of 18 feet. The site under consideration across the bay, which has been referred to on several occasions, is objectionable on account of its exposed position, and difficulty of access by reason of shoal water and the presence of numerous rocks, which make it practically impossible to land stores and supplies.

My experience at St. Michael demonstrates the necessity of erecting at this point storehouses for both the quartermaster and subsistence departments for the assortment, repacking, and reshipping of stores consigned to posts in this vicinity and on the Yukon River.

I also recommend the purchase of two stern-wheel river steamers, each of about 300 tons burden, for use on the Yukon. At present the transportation companies having the contract for carrying supplies up the Yukon do not start the shipment off immediately upon its delivery to them, but wait until their boats secure a full cargo. The result is that the up-river posts are frequently out the use unnecessarily, for several weeks, of stores urgently needed. For example, the *Seward* delivered here about July 3 some 450 tons of subsistence supplies—a large quantity being perishable—to the contracting transportation company for delivery to posts on the river. The company did not ship them out from St. Michael until July 20, and as late as August 11 they had not been delivered at Fort Egbert.

I further recommend that all coal, forage, and building material intended for posts in northern Alaska be started from Seattle not later than June 15, and as a means of economy to the Government, would suggest that they be shipped by sailing vessels. All stores intended for posts on the Yukon River should reach St. Michael not later than August 15 to insure their safe transport to destination. At this date, September 20, fresh vegetables intended for Fort Egbert have just arrived at St. Michael, and it is absolutely impossible to deliver them at Egbert during the present open season.

Assignments and transfers of troops have been made as follows in the department, pursuant to authority from the Secretary of War, contained in communication of April 4, 1900, and deemed for the best interests of the service: Company G, Seventh Infantry, to Port Valdez; two companies, A and K, Seventh Infantry, to Nome; two companies, B and I, Seventh Infantry, to Fort St. Michael; detachments of Companies E and F, Seventh Infantry, from Nome and Fort St. Michael, to their proper companies at Fort Gibbon; Company E, Seventh Infantry, Fort Gibbon to Fort Egbert, relieving Company L, Seventh Infantry, ordered to station at Fort Gibbon; detachment at Circle City relieved and ordered to its proper station at Fort Egbert; detachment Company L, Twenty-fourth Infantry, Wrangel to Skagway. Troops at all the posts will be safely sheltered before winter sets in.

I recommend that a cable be laid from Seattle, via Juneau and Skagway, to Valdez, connecting with the telegraph line now being built over the All-American Route from Valdez to Fort Egbert and down the Yukon River to Fort St. Michael, which, with the cable now contracted for from the latter point to Nome, will give continuous communication between all important parts of Alaska and the States.

The steamship *Orizaba*, having on board the cable to be laid between here and Nome, and from here to Unalaklik, had the misfortune to strand on a reef near St. Michael Island in the beginning of the work of laying the cable between this point and Nome. The cable has been saved from her, but the ship is still on the rocks, and there seems no prospect of getting the cable down this season.

Work upon the projected telegraph line from Valdez is well under way, and it is hoped that communication will be established throughout the entire length of the line within a year from this date. Attention is invited to the detailed report of the signal officer of the department, appended hereto, showing the amount of work done up to date and the location of the different working parties.

Lieut. Hjalmer Erickson, Seventh Infantry, has been detailed to explore and locate, during the coming winter, a military road from Rampart, or other point in that vicinity southward of the Yukon flats, to Fort Egbert. This is intended to further facilitate the work of telegraph construction and afford a means of access between supply and repair stations.

I would recommend that a life-saving station be established in the vicinity of Nome. The tales of death by drowning on the shores of Bering Sea during recent storms are appalling. How many lives were lost is not known and probably never will be.

I recommend that light-houses with fog whistles be established in southeast Alaska at the following places: Cape Fox, near southern boundary of Territory; Cape Commanah, entrance from the north into Tongas Narrows; Five Fingers, in Frederick Sound; also a fog signal in Unimak Pass.

My experience further leads me to believe that it would be better that the headquarters of the department be established at some point to the southward in Alaska, or on Puget Sound, where communication may be had with the markets of the country all the year round, and I recommend transfer accordingly as soon as telegraphic communication shall be established from such open port to the various posts of the department.

I have the honor to recommend that a military reservation be declared at Dutch Harbor with a view to establishing thereon a coaling station for Government vessels plying in Alaskan waters. In the development of this country, with our possessions in the Far East, Dutch Harbor occupies an important geographical position, and the need may arise at some future time for erecting fortifications for its protection.

I am not possessed of the necessary data upon which to base the order for the reservation, but will request the captain of one of the revenue cutters to obtain it upon his return voyage this fall, and submit the same to the War Department in connection with this recommendation.

NATIVES.

Considerable has been said about the indigent white man in Alaska, but the indigent Eskimo has been unnoticed by those whom he has befriended, and has been allowed to die for lack of proper care and food. For years he has extended his hospitality to adventurous white men. His hut has been shelter for the shipwrecked sailor and frost-bitten miner. Poor as were his supplies, they have been opened to the weary and hungry traveler. The tales that could be told of acts

of charity on the part of the Eskimo would in themselves constitute a powerful plea in his behalf.

From all points—Cape York, Port Clarence, Topkuk, Golofnin Bay-Yukon River, and elsewhere—reports were received of sickness, starvation, and mortality so great that it promised to wipe out almost the entire race. Where there were hundreds a few years ago, there remain only a few scattered here and there to-day. The ravages of disease have been so violent that but few have escaped, and they have been unable to collect food and fuel for the winter.

The condition of the natives in the vicinity of Nome had become so distressing that Lieut. D. H. Jarvis, United States Revenue-Cutter Service, reported the facts to me. The tug *Meteor* was chartered and placed at his disposal. He collected about 100 sick and destitute natives and encamped them on the beach near Nome River. The commanding officer at that point was instructed to furnish medical attendance and subsistence until such time as they should become able to care for themselves. The revenue cutter *Bear* has been distributing supplies as rapidly as possible to the natives farther north. The revenue cutter *Nunivak* carried supplies to the destitute natives on the Yukon River, and additional supplies will be forwarded from this depot before the close of navigation, to be distributed during the winter by the missions of the Greek Church and Holy Cross, and at Anvik and Nulato. Natives in the vicinity of Fort St. Michael have been cared for by the commanding officer of the post.

The resolute manner in which Lieutenant Jarvis made preparation for the relief of the natives has won for him the highest praise from those who are familiar with the situation.

In many parts of the United States provision has been made for the Indian. Reservations have been set apart for him and food and clothing supplied. In Alaska it was not necessary heretofore to do much, but the great rush of white men that followed the discoveries of gold has completely changed everything. The game and fur-bearing animals have about disappeared, and the natives' means of sustenance are gone. I therefore recommend that the Government afford some relief to the natives until such time as they can take care of themselves.

I am of the opinion that it would be a mistake for the Government to give any general aid in future to the venturesome classes of white men who come to Alaska. About 300 have been sent out on transport and other vessels this year, and many more will be sent before the close of navigation. The conditions are now generally known throughout the States, and the expectation of Government aid in returning to their homes in case of failure has without doubt been the most hopeful prospect in view to a considerable number who have come to the country since 1897, and especially in the recent rush to Nome.

Second Lieut. Wallace M. Craigie, Seventh Infantry, commanding the detachment at Nome during the winter of 1899 and 1900, deserves credit for the calm and firm manner displayed in conducting affairs.

Capt. Charles G. French, Seventh Infantry, commanding Company F of his regiment, has been in command of the subpost in Nome since June 29. He has handled the situation very ably, and, while being firm in the administration of justice and in the enforcement of law and order, has retained the good will of all.

The department staff officers and my personal aid have at all times given me their energetic and loyal support, and have rendered efficient and commendable service in the work of their several departments.

Very respectfully,

GEORGE M. RANDALL,
Brigadier-General, U. S. V., Commanding Department.

APPENDIX A.

HEADQUARTERS DEPARTMENT OF ALASKA,
ADJUTANT GENERAL'S OFFICE,
Seattle, Wash., April 22, 1900.

The COMMANDING OFFICER, COMPANY G, SEVENTH INFANTRY,
Transport Rosecrans, Seattle, Wash.

SIR: The commanding general, Department of Alaska, directs me to communicate to you the following:

Your company is assigned to duty at Port Valdez, Alaska, in the interest of good order, and for the protection of persons and property.

It is expected that you will exercise your discretion in regard to questions that may arise relating to property and other rights of civilians in that vicinity, basing your action in every instance upon the circumstances of the case, and using your force as little as possible compatible with the objects to be attained.

In the matter of sick or destitute persons who may apply to you for assistance, the following remarks of the Secretary of War upon that subject at Eagle City, Alaska, are quoted:

"I am not altogether sure whether sick and destitute persons who may be residents of, or who may arrive at this settlement, should be cared for by the military authorities until they can be sent out of the country; and it would seem as though the citizens should be required to make provision for such cases; but in the present condition of affairs at this point there seems to be no other practicable course."

The commanding general desires, therefore, that when cases of this character come before you, you will exercise the greatest care both in regard to providing for them at the post and in supplying transportation back to the States; to prevent imposition upon the Government or encouragement to undeserving and worthless characters.

He further directs that you make a report of all matters of interest connected with the post at that point, to reach these headquarters at St. Michael not later than September 10.

Very respectfully,

W. P. RICHARDSON,
Captain Eighth Infantry, Acting Assistant Adjutant-General.

APPENDIX B.

HEADQUARTERS DEPARTMENT OF ALASKA,
ADJUTANT-GENERAL'S OFFICE,
Seattle, Wash., May 31, 1900.

Maj. J. T. VAN ORSDALE,
Seventh Infantry, Aboard Transport Rosecrans, Seattle, Wash.

SIR: The commanding general, Department of Alaska, directs me to communicate to you the following:

Your command is assigned to duty at Cape Nome, Alaska, for the preservation of order in the absence of any established form of government at that place, and for the protection of persons and property.

Your force will be used as little as possible, compatible with the objects to be attained, and you will support and assist such provisional civil organization as you may find in existence at that place. You will not interfere with such organization except under extreme conditions in which life and property are, in your opinion, in serious danger, in which case you will suspend the civil organization and assume entire control, reporting without delay to the department commander the reasons for your action. This course will be justified only in cases of extreme gravity which

will not permit of the delay necessary to receive instructions by mail from the department commander.

Much confusion will no doubt exist upon arrival of the boats now leaving for Cape Nome, and you may be called upon to decide questions relating to property and other rights of civilians in that vicinity. As far as possible have these questions held in abeyance for settlement by the district court, which it is expected will be established there before the close of navigation.

In the matter of sick and destitute persons who may apply to you for assistance the following remarks of the Secretary of War upon that subject at Eagle City, Alaska, are quoted:

"I am not altogether sure whether sick and destitute persons who may be residents of or who may arrive at this settlement should be cared for by the military authorities until they can be sent out of the country; and it would seem as though the citizens should be required to make provision for such cases, but in the present condition of affairs at this point there seems to be no other practicable course."

The commanding general desires therefore that when cases of this character come before you you will exercise the greatest care, both in regard to providing for them at the post and in supplying transportation back to the States, to prevent imposition upon the Government or encouragement to undeserving and worthless characters. Where work is offered, no one should be provided for unless declared by the Post surgeon as physically unable to earn his living in that way.

Very respectfully,

W. P. RICHARDSON,
Captain Eighth Infantry, Acting Assistant Adjutant-General.

APPENDIX C.

[Exhibit 1.]

NOME, ALASKA, June 24, 1900.

General RANDALL,
Commanding Department, Nome, Alaska.

SIR: At a special meeting of the chamber of commerce, called for the purpose of discussing and taking some immediate action in the matter of protection to life and property and the matter of sanitation, the inclosed resolutions were unanimously adopted. We beg you herewith to give this matter your earliest consideration.

Very respectfully,

WALTER N. FERGUSON, *President.*
WILL B. ROBB, *Secretary.*

RESOLUTIONS ADOPTED BY THE CHAMBER OF COMMERCE AT A SPECIAL MEETING JUNE 24, 1900.

Whereas there are now some 15,000 people at Nome, which number is being constantly increased by new arrivals; and

Whereas there is at present no provision for a form of municipal government, and an imperative need for some further control of the camp exists than that which can be furnished by the United States commissioners now acting; and

Whereas this chamber of commerce has implicit confidence in the ability of General Randall to afford such relief as is needed: Now, therefore, it is by the Chamber of Commerce of Nome, Alaska,

Resolved, That this body do forthwith request General Randall to take such steps as may be necessary to provide for the government of this camp until the arrival of the United States district court in the following particulars, to wit:

I. To provide for the policing of this camp.

II. To provide for the proper sanitation of this camp.

III. To provide and enforce proper quarantine regulations.

IV. To provide for the general welfare and protection of life and property, including such measures as may be necessary to prevent and subdue fire or other destruction of property by the elements.

It is also resolved, That a committee of five shall be appointed by the president, of which the president shall be chairman, to wait upon General Randall and notify him of this resolution.

WALTER N. FERGUSON, *President.*
WILL B. ROBB, *Secretary.*

Executive committee appointed to wait upon General Randall: W. N. Ferguson, George Murphy, Conrad Simes, Miner Bruce, Virgil Moore, T. J. Nestor.

[Exhibit 2.]

GENERAL ORDERS, }
No. 17.

HEADQUARTERS DEPARTMENT OF ALASKA,
ON BOARD UNITED STATES ARMY TRANSPORT SEWARD,
Nome, Alaska, June 25, 1900.

In response to request embodied in a resolution adopted by the Chamber of Commerce of Nome, Alaska, at a special meeting, June 24, 1900, the commanding general, Department of Alaska, undertakes to provide protection for persons and property in the camp and vicinity of Nome until the arrival of the United States district court, so far as is possible with the means at his command and consistent with his duties under the War Department; also to enforce certain necessary police, sanitary, and quarantine regulations until such time as the municipal government may be established under the new civil code for Alaska.

All needed support will be given to the commissioner's court in the execution of its orders, and persons are warned against taking unlawful possession of properties previously entered or located and to which they can have no just claim. The carrying of firearms in the town by unauthorized persons is prohibited, and offenders against this regulation will be summarily dealt with by the military authorities.

Detailed instruction in regard to police, and protection against fire, will be given to the commanding officer of the local military force, whom it is expected the citizens will cooperate with and support.

The dangers to the public health are so serious and menacing under the present unsanitary condition of the camp as to call forth, it is hoped, the best efforts and good will of the entire community toward an improvement. Regulations upon the subject will be prepared by the chief medical officer of the department and issued at an early date under approval of the department commander; and all persons are enjoined to give them that careful and conscientious attention and obedience which this important subject demands.

By command of Brigadier-General Randall:

W. P. RICHARDSON,
Captain, Eighth Infantry, Acting Assistant Adjutant-General.

[Exhibit 3.]

HEADQUARTERS DEPARTMENT OF ALASKA,
ON BOARD UNITED STATES ARMY TRANSPORT SEWARD,
Nome, Alaska, July 1, 1900.

The COMMANDING OFFICER,
Detachment Seventh Infantry, Nome, Alaska.

SIR: The commanding general directs that you take such measures as may seem necessary in your judgment for the best execution of the provisions of General Orders, No. 17, from these headquarters, and the circular of June 30, on the subject of police and sanitation in the town of Nome, Alaska. It is deemed especially important that the prohibition against carrying firearms should be strictly enforced, and offenders against this regulation will be arrested, and arms taken from them, and confined in the guardhouse until such time as they are willing to give assurance to the commanding officer of obedience to it in the future. Persons who refuse or are persistently neglectful in cleaning up their premises should be arrested and awarded such punishment as working upon the streets, removing garbage, etc.

It is not possible to issue specific instructions covering all cases. The commanding general relies upon your discretion and judgment, in which he has confidence, but he desires to impress upon you the importance of keeping constantly in mind the objects to be obtained, namely, protection to life and property and preservation of the public health.

Captain Bethel, acting judge-advocate, will be stationed temporarily at Nome, and will render decisions in serious cases of disputed properties, and these decisions you will uphold, by force if necessary, until the establishment of the district court for the adjustment of these matters.

Very respectfully,

W. P. RICHARDSON,
Captain, Eighth Infantry, Acting Assistant Adjutant-General.

[Exhibit 4.]

HEADQUARTERS DEPARTMENT OF ALASKA, CHIEF SURGEON'S OFFICE,
Fort St. Michael, Alaska, August 29, 1900.

The ADJUTANT-GENERAL, DEPARTMENT OF ALASKA.

SIR: I have the honor to submit the following report as to the sanitation of the community of Nome during the period from June 28 to August 1, 1900, at which date—the Federal court having returned from St. Michael and established itself—the duty of the military became one of police patrol for the purpose of preserving order.

In compliance with General Orders, No. 17, current series, these headquarters, recommendations for the improvement of the sanitary conditions of Nome were submitted; these were embodied in a circular published for the guidance of the public (No. 3, current series, Department). Under Special Orders No. 29, current series, the chief surgeon assumed supervisory charge of the work on July 1, 1900.

The conditions then existing as regards the public health were as follows: The older portion of the town was constructed on a narrow strip of land extending along the edge of the tundra from Snake River about one-half mile to the eastward. Both sides of Front street—which thoroughfare, 30 to 40 feet wide, and following the windings of the beach—were compactly built upon for the distance mentioned; some scattering houses extended back on the tundra for one or two blocks on so-called streets, which, passable in winter when the ground is frozen and partially so in dry weather, are mere bogs in the rainy season, impracticable for loaded wagons. This older part of town appeared not to have been cleaned of the accumulated rubbish and filth gathered during the winter, to which was rapidly being added the refuse of the new arrivals.

There were a few earth closets, or rather boxes—for the dry earth or sand was not used—some shallow pits, and more instances where fecal matter was deposited on the surface, a screen of gunny sacking securing a privacy which farther out on the tundra was not deemed necessary. Two public privies, built on ground covered by high tide, were accessible to the people; one of them was free, the other was on a basis of three admission tickets for 25 cents. On the beach, a short distance from the barracks, a wrecked schooner—the *Jessie*—was used as a public convenience, and became a public nuisance.

In the center of the town back of the principal saloons and in the district occupied by the prostitutes the conditions were simply vile; pools of stagnant water, slops, and urine stood upon the surface with scarcely a possibility of drainage into the sea, there being but one or two narrow alleys in this compact line of houses, and where such a space did exist it merely became a common urinal. To pass dry-shod above this mass of filth, straw, paper, and other packing material, with a fair proportion of discarded wearing apparel and bedding, had been thrown to decompose and to be trampled under foot.

Scavengers were unknown; kitchen refuse when not thrown on the surface was allowed to stand in barrels or boxes for the native dogs to feed upon. This method of disposal, prior to the spring arrival of fortune seekers, served to keep a certain degree of cleanliness, but failed with the vast increase of material of this class.

During the fall of 1899 and the winter following, typhoid fever had been epidemic, some 300 to 600 cases, as variously estimated by the attending physicians, occurred in a population of about 3,000, and no care had been taken to disinfect the discharges that were thrown upon the frozen ground. The liability of this infection finding its way into the water supply was an ever present menace to the health of the camp.

The water supply was obtained either free from Snake River, which receives the drainage of a portion of the town, or the two or three wells on the beach, in a direct line to the sea from the most densely populated district of Nome, at a price varying from 7 to 10 cents per gallon. These wells are less than 30 feet in depth, the water being raised by an ordinary suction pump, the principal one, it has been stated, being but 18 feet, and such was the demand that at times its supply was exhausted. No analysis could be had of the water from these sources, but it seems impossible from their location and the nature of the soil, everything being frozen below a depth of 18 or 20 inches, not to have surface seepage to a considerable degree.

If to this situation one increases the population from 2,700 to 18,000 or 20,000 within the space of three weeks; takes into consideration the high, according to the States idea, rates for food (coffee, 25 cents per cup, two eggs, 75 cents, etc.); allows for the changed conditions amongst the new comers of living, incident to a northern climate with its twenty-four hours of daylight, and the anxieties and worries consequent to the struggle to save property; gives due weight to the effects upon the health of the dissipations of a mining camp, and figures on the high price of labor,

\$1 to \$1.50 for man, \$10 for team per hour, as to the probable cost to have anything accomplished, one has a picture of the problem involved in the required work of sanitation. Neither did the solution seem simplified by the importation of smallpox and measles, with the greatly exaggerated reports of the number and virulence of the cases of these diseases, nor by the unfortunate fact of the presence of a rapidly fatal form of pneumonia, or the statements by physicians of the reappearance, at so early a date, among the new arrivals, of typhoid, this fortunately proving to be only a mild form of influenza.

By direction of the department commander contracts were made with Drs. James E. Miller, former post surgeon of Camp Anvil City, and Edward S. Grigsby, late assistant surgeon, Third U. S. Volunteer Cavalry, to assist in the supervision of the work of sanitation. To this duty Dr. H. N. Kierulff, surgeon of Nome Barracks, was also assigned, as later Dr. H. J. Schlageter. Funds were not available to undertake the cleaning of the town and a system of inspection of premises with instruction to the owners or occupants to remove all filth and carry out the directions of the published circular was adopted. Where a failure to comply with these requests occurred after a reasonable time, the party was reported to Captain French, Seventh Infantry, commanding officer of Nome Barracks, for the dereliction, and as an extreme measure the premises in question were placed under guard until properly cleaned. But few instances of this kind were required; most persons obeyed the order cheerfully, appreciating the necessity and hoping by a united effort to save a repetition of the experiences of previous year and such as were encountered at Dawson in 1898; others did the required work more grudgingly, but by persistent effort the greater part of the older town was brought to a comparative state of cleanliness. Old cesspits were closed, earth closets established, accumulations of filth carted to the sea, and all especially obnoxious places removed or remedied, as far as this method could accomplish the work.

The care of the epidemic of smallpox was on arrival of department headquarters in the hands of the Treasury Department; two ships, the *Ohio* and *Santa Anna*, being in quarantine at Egg Island, and one family of 4 from steamship *Oregon* were isolated near Nome River by direction of Lieutenant Jarvis of the Revenue-Marine Service. Under his supervision an isolation camp was established about 2 miles east of Nome, with Dr. Ostrom as resident physician. Dr. S. J. Call, formerly Revenue-Marine Service, as quarantine officer, exercised general charge of these cases, assisted by Dr. Grigsby. The two last named were engaged also in the supervisory work of sanitation, Dr. Call having voluntarily offered his services, which were highly appreciated. It is a pleasure to report that during the entire time perfect harmony existed, and free cooperation was offered in all matters pertaining to the general welfare between the two branches of the Government. Nome Barracks being centrally located and perhaps more generally known to the new arrivals, the report of many suspected cases were left with one or other of the surgeons constantly on duty there, and directions were given for proper investigation and, if necessary, removal to isolation camp. The following is a brief synopsis of Dr. Grigsby's report: Date of appearance of rash as far as could be ascertained, 1 case each on June 17, 20, 22, 25, 29, 30, July 8, 13, 17 and 19; 2 cases each on June 21, 23 and July 15; 3 cases each on June 24 and 26. Date of isolation: 1 case each on June 24, 26, July 2, 4, 6, 8, 12, 15, 17, 18, 19 and 22; 2 cases on July 1; 3 cases on June 30; 7 cases on June 29. This does not include family of 4 isolated at Nome River prior to June 21, nor any of the cases found on the ships quarantined at Egg Island. But 1 death resulted from the disease.

There were undoubtedly patients suffering from this disease that were hidden away by friends between the time of reporting to the sanitary officer and the arrival of the surgeon to investigate and isolate, and anxiety was felt for the probable spread of the contagion from this cause.

When it is remembered that the community of Nome at this time consisted of approximately 20,000 people, living in tents along the beach for a distance of 6 or 7 miles, with offshoots on Dry Creek and Snake River, without order or system, or any degree of permanency, it will be seen that the task of discovering the cases and stamping out the disease was not an easy one and it is believed that the physicians engaged therein are deserving of credit. To Lieutenant Jarvis, United States Revenue-Marine Service, who assumed the responsibility of expenses incurred and inaugurated the work of quarantine, prior to the arrival of department headquarters, much praise must be given.

Many of the patients reported to have had smallpox were found on investigation to be suffering from measles, which, excepting among the natives, did not lead to a fatal termination. No effort was made to separate these patients, the public being warned by the display of appropriate flags.

The Federal court arrived July 19, and shortly thereafter began the transaction of business. On its return from St. Michael, August 1, civil authority was in control, and the chief surgeon was ordered to his proper station, St. Michael.

The subjoined report of Dr. James E. Miller, surgeon at Nome Barracks, will show the conditions at Nome City on August 24, in reference to contagious diseases:

"I have the honor to inform you that the condition as regards typhoid fever at Nome during the month of July, 1900, was excellent as compared with July, 1899, there being no cases reported during July, 1900, and there were 13 cases that I have a report of during the corresponding month of 1899. Dr. Baylis H. Earle, of the Marine-Hospital Service, has collected from all the physicians having offices in Nome a statement for each week showing the number of cases of typhoid fever. The first statement runs from August 5 to 11, the second statement from August 11 to 18. From August 5 to 11 there were 7 cases; from August 11 to 18, 19 cases. I believe the last report includes the 7 cases reported from August 5 to 11. At this time last year, with a population of 2,000, we had over 35 cases of typhoid fever. * * *

"I do not think that the record for the week ending August 25 will show an increase of over 3 cases. * * * Measles, like smallpox, have disappeared. In fact, considering the number of people and the sanitary conditions, the camp is in a very healthy condition."

How much of this is due to the work performed by the military during the month it was in full control can not be definitely stated and must always remain a matter of inference.

In this connection attention is invited to the work of the medical department in the treatment of many indigent sick, sending some of these to the States, and the care of civilian prisoners confined to the guardhouse, many of whom, arrested for disorderly conduct, required surgical assistance. This demand upon the time of the surgeons was such as to keep one person almost constantly engaged from before reveille till after midnight.

Medical services and relief were also furnished the natives for miles along the coast, these people being afflicted to almost a man by influenza and measles, the last terminating in an acute tuberculosis and resulting in entire families being wiped out of existence.

Very respectfully, your obedient servant,

R. G. EBERT,
Surgeon, U. S. A., Chief Surgeon.

[Exhibit 5.]

HEADQUARTERS DEPARTMENT OF ALASKA,
CHIEF SURGEON'S OFFICE,
Fort St. Michael, Alaska, July 25, 1900.

The ADJUTANT-GENERAL, DEPARTMENT OF ALASKA.

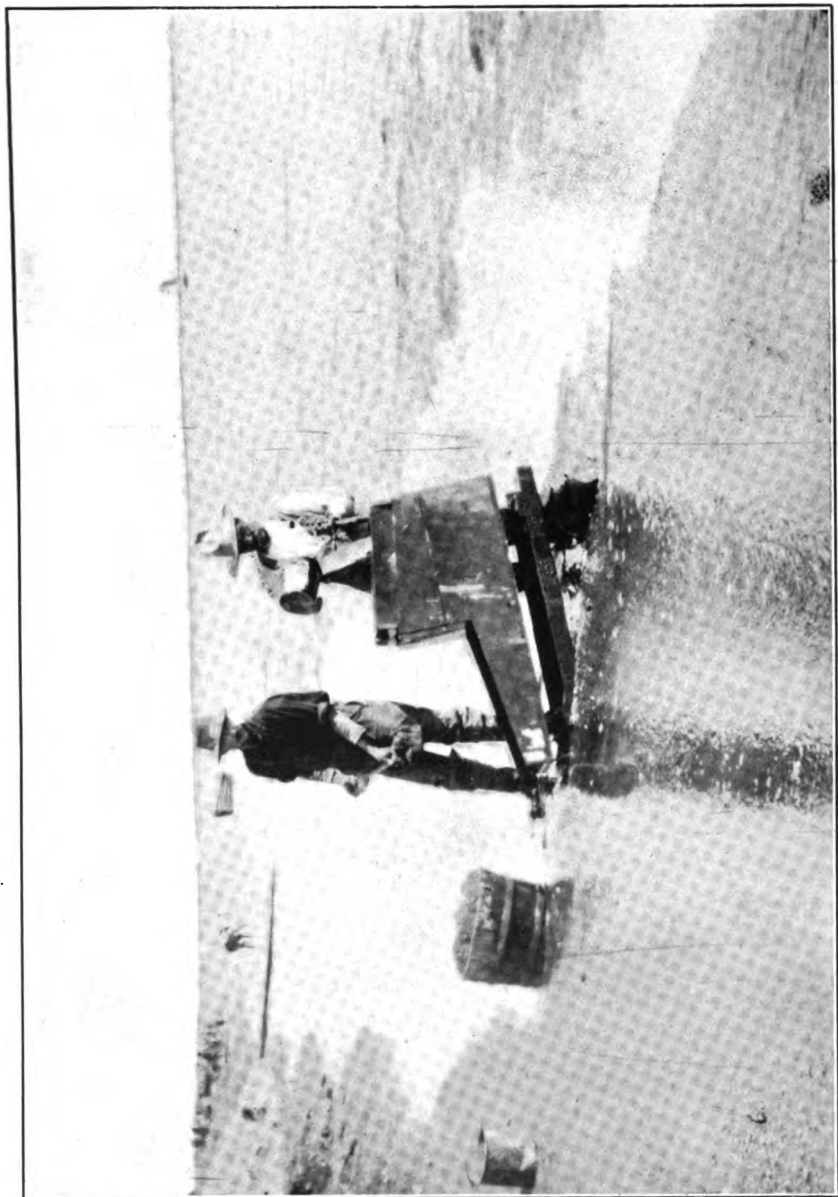
SIR: In reference to the establishment of the quarantine at St. Michael against Nome and northwestern shore of Bering Sea, to prevent introduction of smallpox into the island of St. Michael and the Yukon River Valley, I desire to respectfully submit the following statement of facts:

It was learned in Seattle, Wash., prior to the sailing of the department commander, that smallpox probably existed on some of the vessels bound for Nome, and that 2 cases of this disease had been removed from steamship *Ohio* before leaving port.

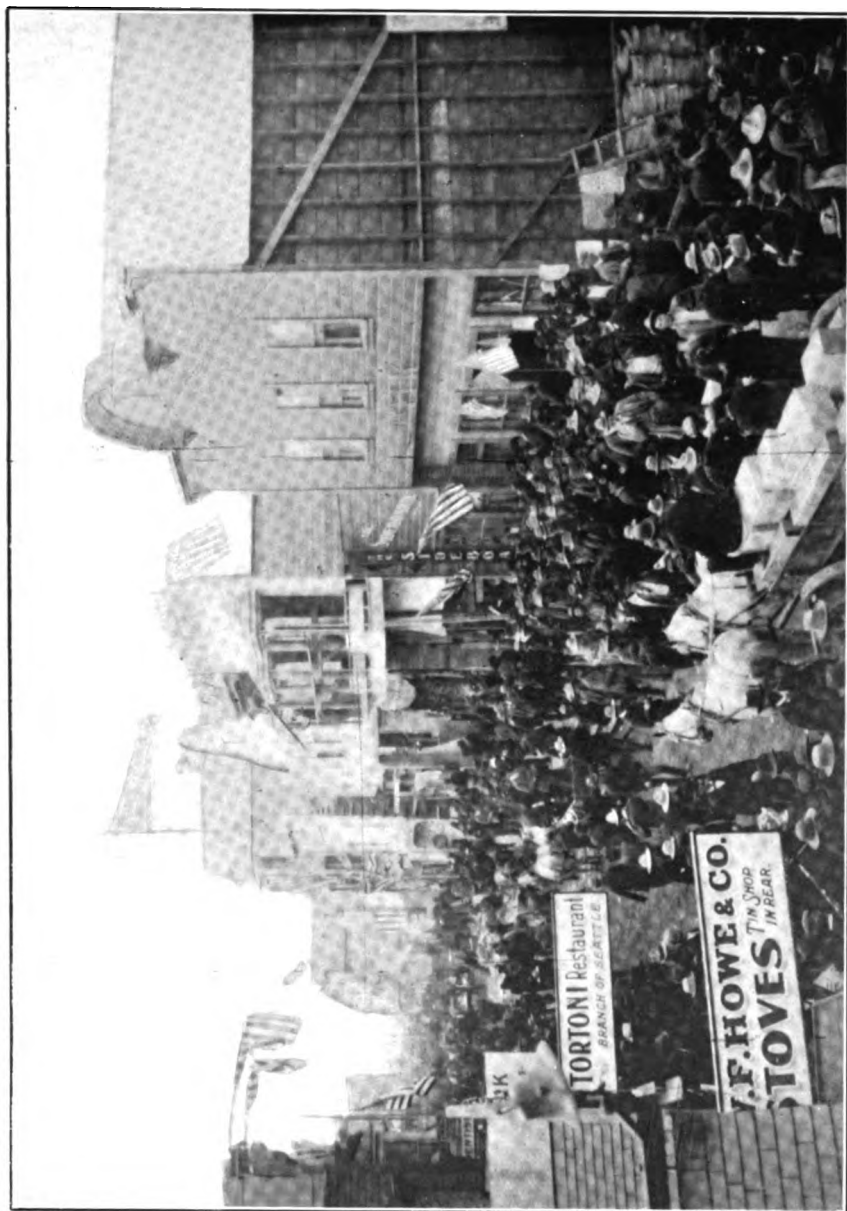
Immediate steps were taken to guard against the introduction of the contagion into a new, unorganized mining community by informing the captain of revenue cutter *Bear*, and requesting his inspection of passengers prior to granting permission to land.

On arrival at Nome the steamers *Ohio* and *Santa Anna* were found to be in quarantine at Egg Island under direction of Captain Jarvis, of the Treasury Department, and that 2 cases had been isolated at Nome River from the steamer *Oregon*.

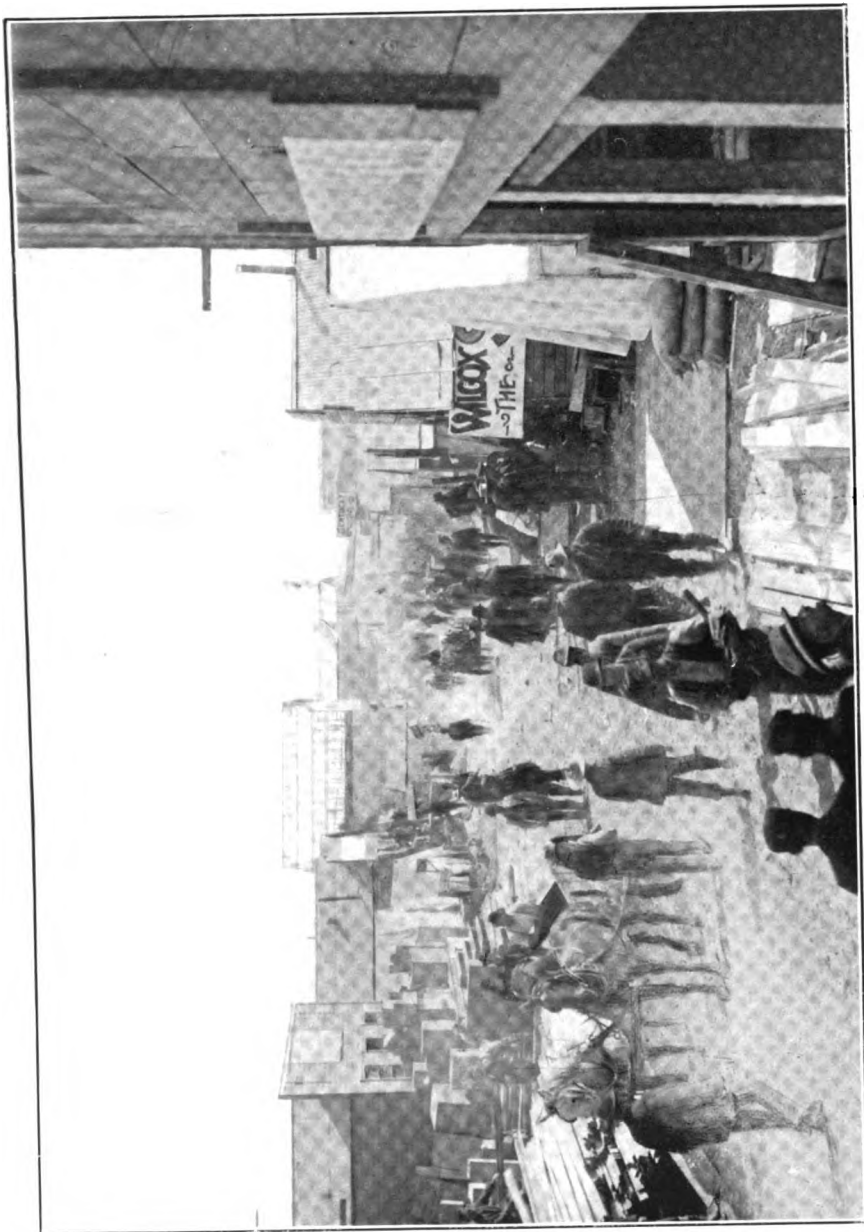
The last two days of June many cases of eruptive diseases were reported. Some, on investigation, proved to be measles, but 11 cases of variola were isolated by July 1, while others had been spirited away by friends and could not be found. This threatened a serious epidemic, and quarantine, with a period of fourteen days' detention, was declared at St. Michael by order of the general commanding. There being no facilities and material for disinfection and fumigation short of the States, no attempt was made in this direction, though the importance and necessity therefor was fully recognized. By July 6 a decided break had been made in the number of new cases reported, there being but 4 for the month to that date isolated. Excepting a child in quarantine with its parents, no other was found until the 12th, the patient in this instance having come from Daw-



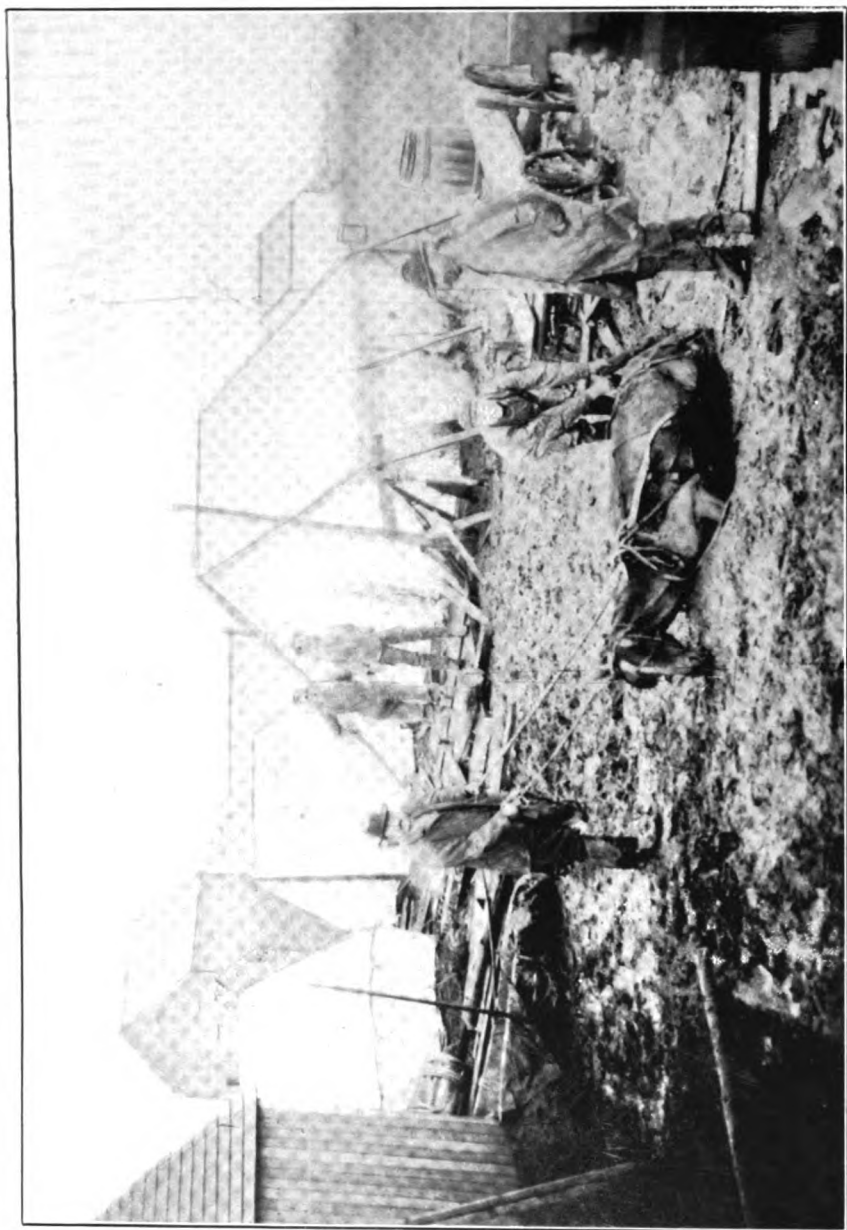
"ROCKING" ON THE BEACH AT NOME, ALASKA.



FRONT STREET, NOME, ALASKA, LOOKING WEST. JULY, 1900.



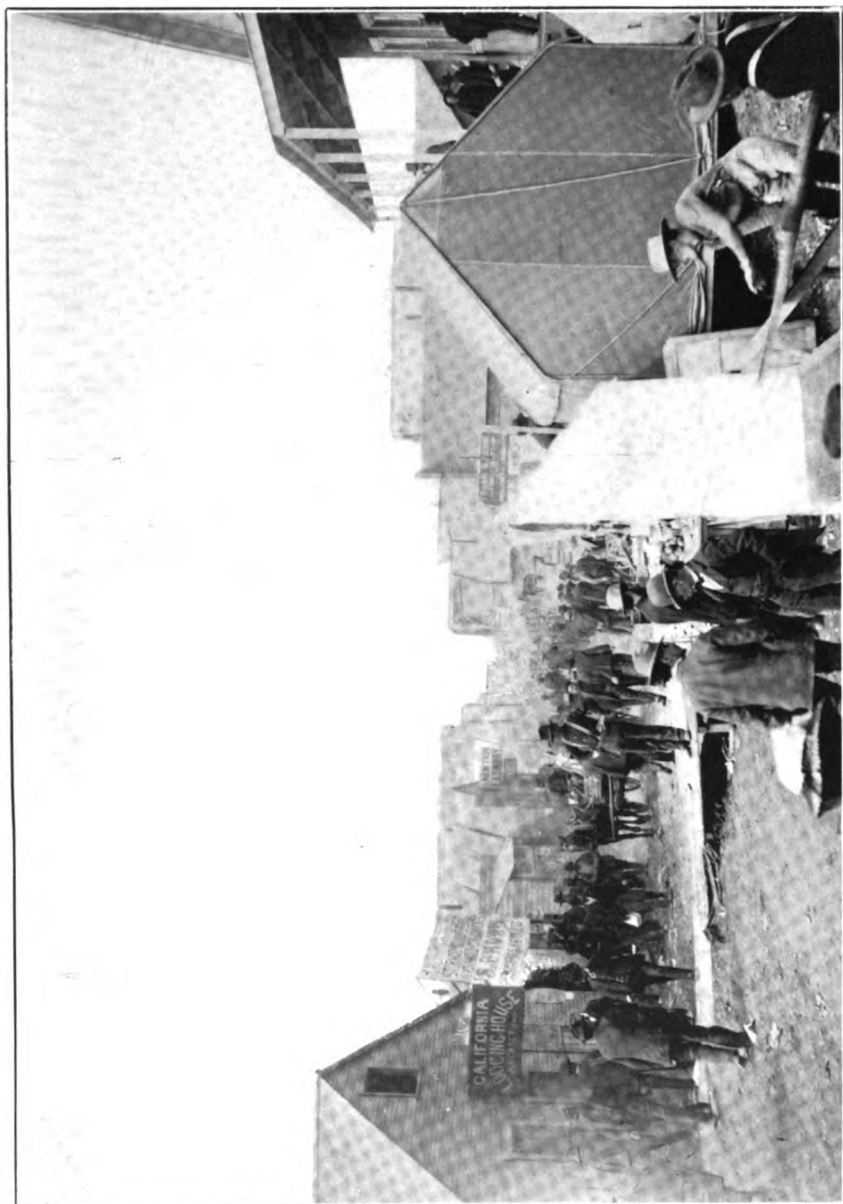
FRONT STREET, NOME, ALASKA, LOOKING EAST. JUNE 23, 1900.



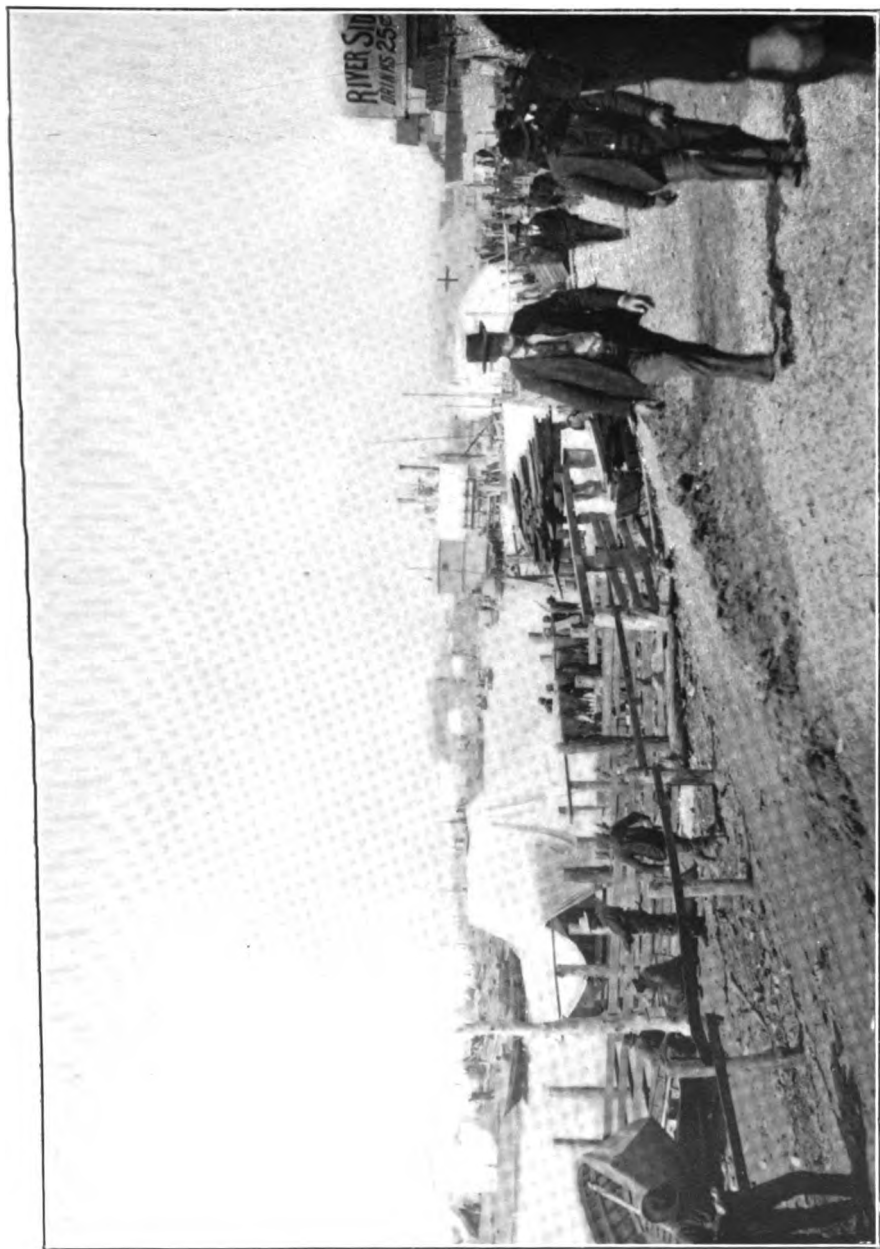
HORSE MIRED IN MUCK OF FRONT STREET, NOME, ALASKA.



LANDING STORES IN THE SURF AT NOME, ALASKA.



FRONT STREET, NOME, ALASKA, LOOKING WEST. JUNE 23, 1900.



VICINITY OF MOUTH OF SNAKE RIVER AT NOME, ALASKA, COMPLETELY SWEEPED AWAY BY STORMS, SEPTEMBER 11-16, 1900.



IMPROVISED PUMP MADE OF ROAST-BEEF CANS, NOME, ALASKA.



"ROCKING" ON THE TUNDRA, NOME, ALASKA.



PROSPECTOR'S TYPICAL WINTER QUARTERS, NOME, AND ALASKA GENERALLY.

son, via St. Michael, June 30, all others heretofore being from steamship *Oregon*. This demonstrates that the contagion also existed in the Yukon valley, having gained entrance by way of Skagway.

By July 19 it was evident that any person who had been exposed to the contagion from the original cases should have manifested premonitory symptoms (last case isolated July 6) indicative of the disease. Therefore a reduction of quarantine to eight days would amply cover the period of incubation, and accordingly, in the interests of commerce, secondary only to the health of the community, the time of detention was lessened.

July 23 no new cases, excepting from Dawson, having appeared, it was recommended by Dr. S. J. Call, acting on the part of the Treasury, and myself, as chief surgeon of the department, to raise the quarantine, which the commanding general ordered done, merely requiring recent vaccination of all persons landing on the military reservation of St. Michael from Nome City.

Very respectfully,

R. G. EBERT,
Surgeon, U. S. A., Chief Surgeon.

APPENDIX D.

[Exhibit 1.]

HEADQUARTERS DEPARTMENT OF ALASKA,
CHIEF SURGEON'S OFFICE,
Fort St. Michael, Alaska, July 30, 1900.

The ADJUTANT-GENERAL, DEPARTMENT OF ALASKA.

SIR: In compliance with verbal instructions of the department commander I have this day made an inspection of physical condition of the Indians on the east shore of Norton Sound between this and Point Keketaunick, distant about 22 miles, and have the honor to submit the following report:

Accompanied by Father Kookarsky, of the Greek Church, and Mr. Windberg, who last evening had reported certain cases of destitution among the natives, a start was made in U. S. Quartermaster's Department launch *Nordica* for Cape Alpalcluk, 7 miles northeast. Here were found John, his wife, 5 boys, and 1 girl, all suffering from the epidemic influenza so rapidly fatal to the natives. A wife and one son were lying dead and unburied in a separate tepee, a short distance removed, surrounded by a litter of young puppies and older dogs. Of the members of the family alive but one, the wife, was at all able to care for herself. The father was in a precarious condition, unable to be moved to the launch, and will in all probability succumb; the older son, Dan, was breathing at a rate of about 30 per minute, the lungs being completely congested; the girl was in a state not much better, while the younger children, including a nursing babe, were afflicted with an incessant cough. The miserably thin canvas substitute for a tent served but poorly to protect the sick from even the slight drizzling mist then falling. Medicines and food, including condensed milk for infants and tea for older members of the family, were given them for several days, and promises of further assistance when fatigue party to bury the dead should be sent.

A half mile beyond was found a house and tent, both unoccupied, the natives having died, as shown by recent graves. That the owners were among the wealthier of the natives was evidenced by the possession of two stoves, several trunks, quite a cache of drying salmon, and clothing, showing at least a reasonable purchasing capacity by the late possessors. Two seines in which salmon and other fish were entangled, partial decomposition showing that at least a fortnight must have elapsed since last drawn, were still in the water, while a third was on a rack on shore.

The recent graves, the last being covered merely by a skin of a kyack, showed that natives themselves had attended to burial; the fact that the dogs remained would indicate that no other members of the family existed.

At Point Keketaunick, the village which at one time must have numbered not less than 100 inhabitants, and at which the priest expected to find about 60 people, there were but four families, a total of 19 or 20 souls. Excepting one man, a boy, and two half-grown girls, all were helpless. Even these were to a greater or less degree suffering from the prevailing sickness and 3 had died. Beyond a few fish and birds there was no food supply. To these were given the stores directed to be distributed by the department commander.

Owing to the lateness of the hour, other camps more in the immediate vicinity of St. Michael were unvisited, though a further distribution of supplies was made.

The diseases are epidemic influenza and measles. Owing to the scarcity of food during the spring and early summer, the ability to resist their inroads has been materially decreased; in other words, partial starvation adds to the mortality. With the entire community stricken by disease all further sources of food cease as far as the efforts of themselves, the natives, are concerned, and those who do not die directly from the infection, which in many cases seems to terminate in an acute tuberculosis, will die of starvation unless relief from Government sources is furnished.

As this is the season in which the native should lay by his winter stores, and as this epidemic extends to Cape York, as I have seen by personal observation, and am reliably informed also down to the coast to the Kuskokwim and up the Yukon for over 300 miles, it is evident that no natives will remain alive by next spring unless immediate measures are taken to feed, clothe, and care for these people for the next ten months.

Very respectfully,

R. G. EBERT,
Surgeon, U. S. A., Chief Surgeon.

[Exhibit 2.]

POST HOSPITAL,
Fort St. Michael, Alaska, July 31, 1900.

The CHIEF SURGEON, DEPARTMENT OF ALASKA,
Fort St. Michael, Alaska.

SIR: In compliance with your request, I have the honor to make the following report as to the Indians in and about St. Michael. There were about 200 natives on the island last winter. This number has been greatly diminished by sickness and death, and others, becoming frightened, have left the island. It is not possible to determine how many of the 200 who were here last winter have died, but I believe it is a large number. To illustrate, a family of 6 were in the hut near the S. S. Mare Island. They became frightened and left the island. One of the family informs me that all are dead except 2. I do not know where the bodies are. About 17 natives have died near the post.

There has been an epidemic of la grippe and measles among them. In several families all would not be able to fish or care for the others. As a result, starvation has played an active part in causing the high mortality. Pneumonia has been a very common complication and in many cases the immediate cause of death.

The following cases are good illustrations of the condition in which I find many of the families:

1. A family of 7 was found in a tent on the beach; all sick, 3 having pneumonia; no one able to work.

2. In the hut south of the Alaska Commercial Company's canteen I found a sick woman. She was delirious and almost naked. An infant 7 months old was lying in a box. It had measles and pneumonia. In the feeding bottle was some sour milk, which showed that the child had not been fed during the last forty-eight hours. There was no fire in the room, and it was very damp. The mother has since died and the child taken to the home of a Russian priest.

An old man and woman and a little girl were found in one of the huts. The hut is partly underground and has a flat sod roof. Water covered part of the floor. Everything was very damp. They have been moved to a better house, but there is no one to care for them. They lie in bed all day with no fire in the room. Their only food is sugar, water, and the bread issued them by the commissary.

The treatment of these cases is very difficult; some will not take medicine at all, and most of them are not to be trusted with poisonous drugs.

The miners and A. C. Co. have used all the driftwood, so that it is impossible for them to get fuel, not even enough to cook their food.

Very respectfully,

R. J. MARSH,
Acting Assistant Surgeon, U. S. A., Post Surgeon.

**REPORT OF MAJ. GEN. LEONARD WOOD, U. S. VOLUNTEERS,
COMMANDING DIVISION OF CUBA.**

HEADQUARTERS DIVISION OF CUBA,
Habana, September 10, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: In compliance with the instructions of the Lieutenant-General Commanding the Army, I have the honor to submit my annual report for the period ending June 30, 1900.

I assumed command of this division on December 20, 1899, in compliance with General Orders, No. 206, Headquarters of the Army, December 13, 1899.

During the period for which this report is rendered there have been but few changes in the stations of troops, which are noted in the accompanying report of the adjutant-general of this division, to which special attention is invited. The present stations of troops throughout the island are also accounted for in the "roster" which accompanies the report of Col. W. V. Richards.

There has been a steady diminution in the strength of the garrisons of the island since December, 1899. In January the Fifteenth Infantry was relieved from duty in the island and home battalions of the Tenth and Eighth Cavalry were sent to the United States; also home battalions of the First, Second, Eighth, and Tenth Infantry and Second Artillery, and in the month of July, 1900, First, Second, Fifth, and Eighth Infantry were relieved from duty in the island. The general reduction in the garrisons resulted in the abandonment of the posts of Baracoa, Mayarí, Gibara, Nuevitas, Caibarién, Cárdenas, Sagua la Grande, Placetas, Sancti Spiritus, Trinidad, Pinar del Rio, and Guanajay, and the abandonment of many temporary stations, such as Banes, Cobre, Jiguaní, in the province of Santiago de Cuba, and the concentration of the troops of the remaining regiments into comparatively large garrisons, the Seventh Cavalry being assembled at Camp Columbia, near Habana, the Second Artillery garrisoning the defenses of Habana, and one light battery at Columbia Barracks. The entire Second Cavalry has been assembled at Matanzas, headquarters and one battalion of the Tenth Infantry at Cienfuegos, the remaining battalion being stationed at Morro Castle, Santiago de Cuba. The Eighth Cavalry was at first stationed in temporary camp, near Puerto Príncipe. On the removal of the Fifteenth Infantry in January 2 troops were sent to Ciego de Avila and 1 to Nuevitas, which place was later abandoned as a station. In the month of July 1 troop was sent from Puerto Príncipe to Guantanamo and 1 to San Luis, Santiago de Cuba, leaving only 6 troops in the province of Puerto Príncipe, 4 in camp about 4 miles from the city of Puerto Príncipe, and 2 at Ciego de Avila, on the Júcaro-Morón Railroad. The Tenth Cavalry is at present stationed headquarters and 3 troops at Manzanillo, 4 troops at Holguín, and 1 troop at Bayamo. A detachment of 10 men of this regiment and an officer are at present stationed at Baracoa, looking after Government property and interests there.

With the single exception of the province of Santiago, troops and companies of the various regiments have been assembled as much as practicable in large garrisons for the purpose of greater convenience

and greater facilities in supplying them. In Santiago de Cuba the wild and mountainous character of a great portion of the province, together with the lack of communication, have rendered it necessary to maintain a number of comparatively small garrisons. There should be no further reduction in the number of troops at present.

The general conduct of the troops has been most admirable, and it may be said that complaints against the troops from the civil authorities and individuals have been of extremely rare occurrence. The general conduct of the officers and men has been excellent and highly creditable to the Army. The variety and number of duties, most of them entirely new, which our officers have been called upon to perform has included supervision and control of almost every class of work, whether administrative or constructive, and the performance of duty has been such that whenever I have had occasion to assign any particular work to an officer, I have always felt sure of the work being properly and efficiently done. The conduct of both officers and men has been such that the military occupation has been free from scandal and evil reports reflecting in any way upon the service. When the variety and scope of the work which our officers have done is appreciated, I believe the general conclusion will be that habits of thoroughness, obedience, and straightforwardness, which are the results of military training, form a splendid basis for administrative and reconstructive work. In general I can say that throughout the island the work performed by officers of the Army has been of incalculable assistance in the establishment of civil government and the reconstruction of the country.

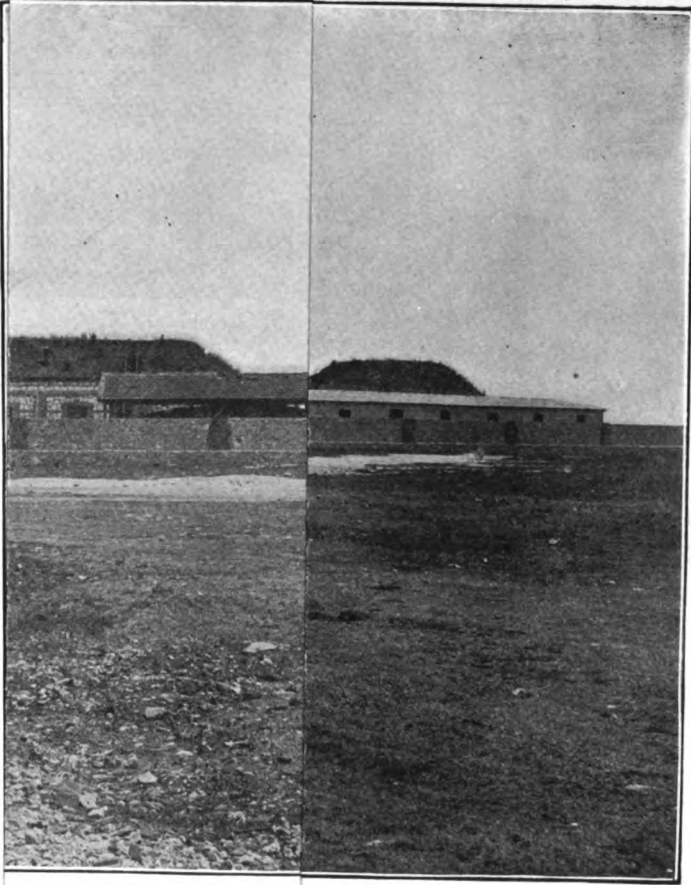
The posts in this division are in good condition to shelter troops. Whenever it has been found necessary to occupy old barracks, formerly used by the Spanish troops, the buildings have without exception been thoroughly renovated and disinfected. Such new barrack buildings as have been constructed have been of light, airy construction, with, as a rule, double roof and suitable verandas, and they have been so placed as to obtain plenty of air and sunshine. All barrack buildings have been provided as well as possible with bathing facilities, and whenever water has been of doubtful quality, all precautions have been taken to make it suitable for drinking and other purposes.

After two years' service in the island I think it can be safely said that our troops can serve here without difficulty.

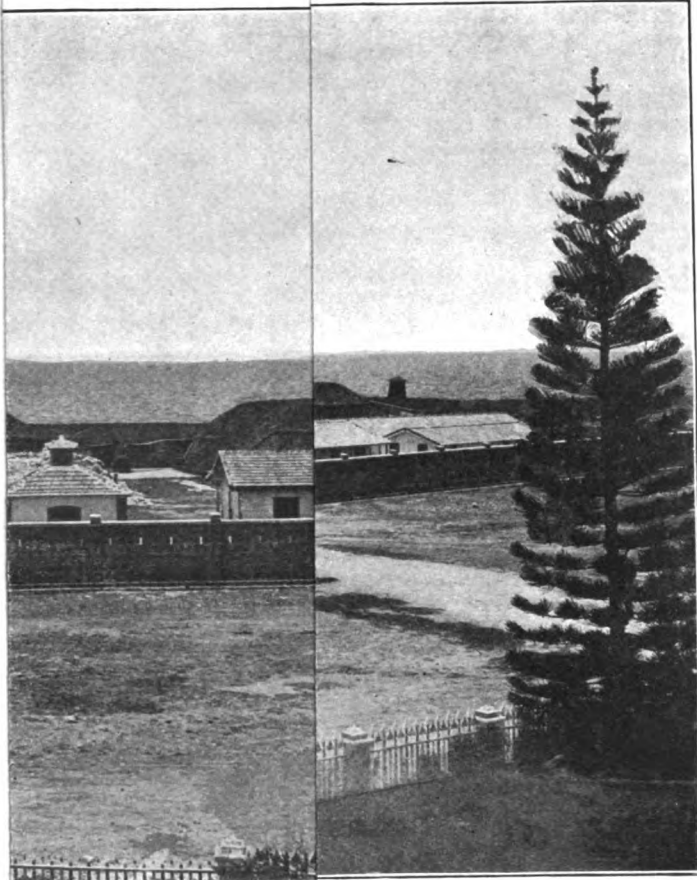
Owing to the exigencies of the service, the number of officers has been so reduced that it is difficult to get enough to perform the necessary garrison duties. The detail of officers with volunteer regiments, at West Point, and as collectors of customs and on other quasi-civil work has thrown upon the officers who have remained with their regiments many additional duties and hardships, obliging me to deny to them in many cases well-earned leaves of absence.

A personal inspection of the troops throughout the islands has shown a high rate of efficiency. The barracks inspected by me are without exception clean, neat, and in excellent sanitary condition. The rations furnished to the men are ample and the food good and well cooked. The clothing supplied is satisfactory and the arms and accouterments are in excellent condition. Troop horses, mules, and pack animals are well taken care of and in condition to render hard service.

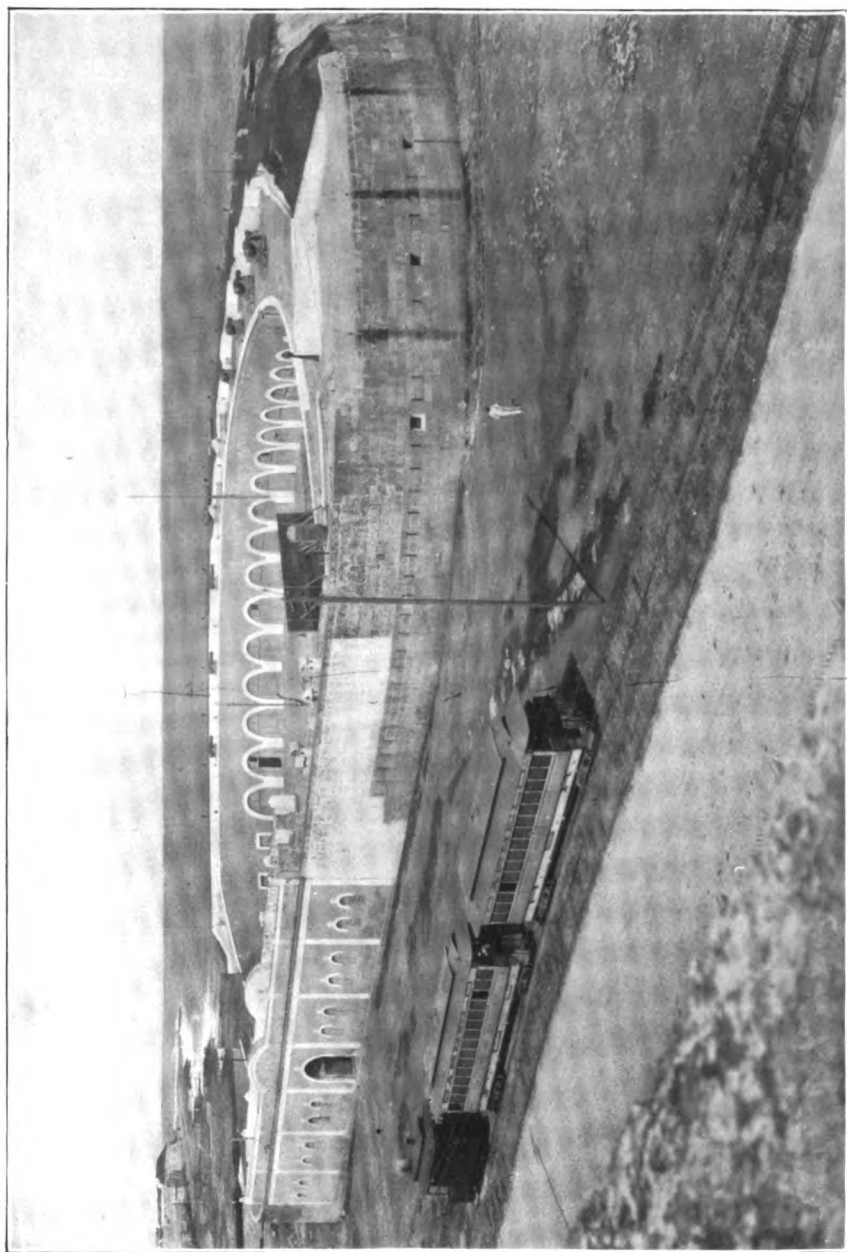
The health of this command is excellent, and in this connection special attention is invited to the report of the chief surgeon of the division.



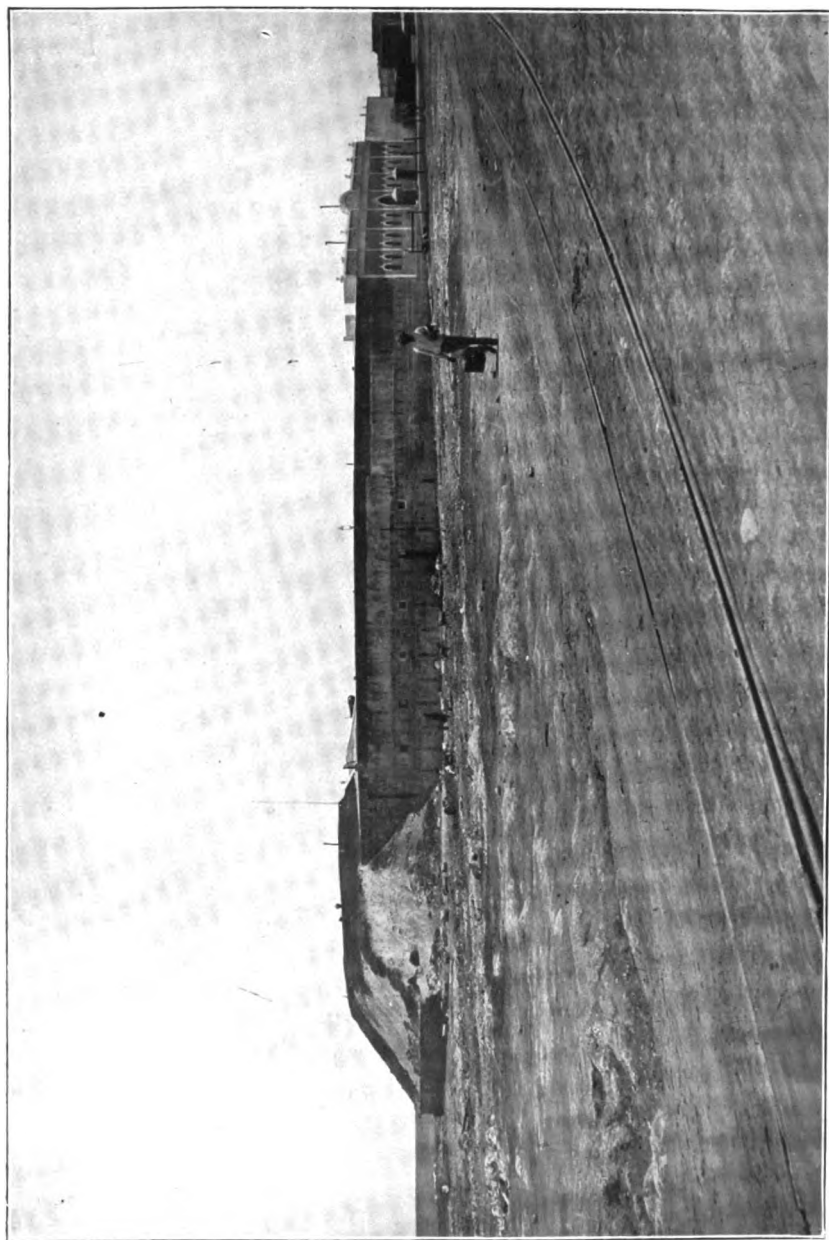
ERY DEFENSES OF HAVANA.



ARTILLERY DEFENSES OF HAVANA.



REINA BATTERY—ARTILLERY DEFENSES OF HABANA.



REINA BATTERY—ARTILLERY DEFENSES OF HAVANA.

From this report it will also be seen that sanitation is carried on with vigor.

Recruits should be sent to regiments serving in Cuba from the first of November to the latter part of March. This period is a safe one and gives them a certain number of months to become acclimated and greatly increases the chances of avoiding malarial and other fevers prevalent in certain parts of the island.

In July of the past year it was found necessary to withdraw troops from Manzanillo and Bayamo and from the barracks situated in the suburbs of the city of Santiago, because of a serious outbreak of yellow fever. In Puerto Principe, the Fifteenth Infantry and Eighth Cavalry were withdrawn from the barracks in the suburbs of the city and placed in camp about 4 miles distant from the town. This move was also rendered necessary by an outbreak of yellow fever which threatened to become serious.

In the summer of 1899 the yellow fever seemed to be specially prevalent in the eastern provinces. This outbreak can be traced directly to infection from the towns in which, or near which, the barracks were situated. It is not difficult to disinfect barrack buildings and render them, so far as they are concerned, safe for occupancy, but it is impossible to thoroughly disinfect the cities and large towns in which they are situated, hence the necessity for the prompt withdrawal of troops in all cases of yellow fever appearing in barracks situated in towns or cities. In every instance with the withdrawal of troops from the barracks in question and placing them in camps on suitable ground with plenty of air and sunshine the spread of the fever has been promptly stopped. In the western provinces last year there was, as there always is, some fever; also in the city of Habana, and some few other scattered cases in some other towns, but it was not, what is considered in local parlance, a yellow-fever year. However, there is one very suggestive feature, and that is the continuance of a certain number of yellow-fever cases in Habana throughout the winter. This number remained stationary till the latter part of June, when it began to increase until August, when there were present in the city eighty-nine cases. The fever also appeared at Santa Clara, Pinar del Rio, Quemados, Guanajay and Columbia Barracks. At Santa Clara it was persistent and so threatening that the troops were moved out and the barracks abandoned. At Pinar del Rio and Guanajay the outbreak was serious, and temporary abandonment of the posts was only avoided by the troops garrisoning them being sent to the United States. At Columbia Barracks the fever has never made any headway, now and then an isolated case usually among civilians. At Quemados it acquired considerable headway but was finally checked by the vigorous sanitary measures adopted.

Special attention has been given to military instruction and the fine appearance of our soldiers. Their efficiency in drill and the high state of their discipline are conclusive proof that officers have given careful and personal attention toward attaining this degree of efficiency. On account of the climatic conditions existing, indoor instruction, theoretical and practical, has been had during the summer months, and the period from November to March has been set aside for outdoor drill, target practice, practice marches, reconnaissance, and scouting.

All troops intended for service in Cuba should be mounted troops, except necessary batteries of artillery and companies of infantry for

garrison duty at two posts. Infantry engaged in active work in Cuba during the hot and rainy months, and even during the winter, will suffer severely from malaria, heat, and exhaustion, whereas mounted troops can perform hard service without bad results. The work required in Cuba is of such a character that the troops require to have a high degree of mobility. The climatic conditions are such that this mobility must be obtained with as little effort as possible on the part of the troops. My own experience has been that mounted men can do continuous and hard service in Cuba and retain their efficiency and that foot troops can not for any length of time perform duties calling for hard marching and exposure without suffering severely from malaria and the depressing effects of exposure to the sun. This is largely borne out by the experience of the Cubans. It is believed that the same general conditions pertain to Porto Rico and the Philippines, and, if we are to judge from the experience of the past two years and desire to have a thoroughly efficient, highly mobile force in the tropics, we must largely increase the present strength of the cavalry arm.

The work of the Army in connection with civil affairs will be taken up in detail in the civil report.

I desire to express my appreciation of the service of the following officers, especially of Brig. Gen. Adna R. Chaffee, chief of staff, whose faithful and arduous services at these headquarters contributed largely to the reestablishment of the civil government:

Col. W. V. Richards, adjutant-general, whose able, devoted, and unremitting attention to duty rendered his services of the greatest value and finally resulted in a breakdown in health and necessitated his relief from duty in the division.

Col. H. L. Scott, for most able and efficient services as adjutant-general of the division.

Maj. J. B. Hickey, for faithful and efficient services rendered in charge of the department of civil orders and proclamations.

Maj. E. St. John Greble, for the marked ability and energy with which he has conducted the reorganization of the charities and hospitals of the island.

Col. George H. Burton, for energetic, efficient, and thorough performance of the duties of inspector-general.

Maj. Edgar S. Dudley, for highly valuable and efficient services as judge-advocate, which involved a deep and thorough study of Spanish law and procedure.

Col. C. F. Humphrey, for efficient and able conduct of the duties of chief quartermaster.

Maj. O. E. Wood, for able and efficient services as chief commissary of subsistence.

Maj. Valery Havard, for able and efficient services as chief surgeon.

Maj. Francis S. Dodge, for efficient performance of the duties of chief paymaster.

Maj. William M. Black, for exceedingly able and efficient services in connection with his duties as chief engineer, city of Habana and later of the division.

Capt. Ormond M. Lissak, for efficient services as chief ordnance officer.

Col. H. H. C. Dunwoody, for painstaking, intelligent, and, as chief signal officer, efficient services in the maintenance and establishment of telegraphic lines of the island.

To Maj. Tasker H. Bliss, for the most excellent and able manner in which he has conducted the customs service, rendering it efficient in the highest degree.

Maj. Eugene F. Ladd, for efficient conduct of the office of treasurer of the island.

Lieut. Edward C. Brooks, for able and efficient services as aid-de-camp and later as auditor for the island.

Maj. R. H. Rolfe, for efficient services as assistant inspector-general.

Maj. D. T. Lainé, for faithful and efficient services as attending surgeon.

Maj. Marlborough C. Wyeth, for efficient services as medical supply officer.

Maj. W. C. Gorgas, for arduous and valuable services as chief sanitary officer, city of Habana.

Maj. William L. Pitcher, for extremely valuable and efficient services in charge of the police court, city of Habana, and supervisor of police.

Capt. Fred M. Page, attached, for faithful and able services in the department of civil orders and proclamations.

Capt. Edward B. Ives, for efficient services as disbursing officer and acting assistant quartermaster, volunteer signal corps.

Lieut. Matthew E. Hanna, aid-de-camp, for valuable and efficient services as engineer in charge of road construction, Department of Santiago; ordnance officer of the department and later for efficient and valuable services in the reorganization of schools of the island.

To Lieuts. Frank R. McCoy and Edward Carpenter, aids-de-camp, for faithful, efficient, and intelligent services in connection with civil affairs, in addition to their duties as aids.

To Mr. F. Steinhart, chief clerk, division headquarters, for his most able, faithful, and unremitting devotion to the duties of his office, thereby contributing much to the prompt and efficient conduct of official and civil business; also to the clerks of the office for faithful services and devotion to duty, the performance of which has necessitated throughout the year much overtime work and work on Sundays and holidays.

In conclusion I invite attention to the accompanying reports of the staff officers on duty at these headquarters and to the recommendations contained therein, which meet with my approval.

Very respectfully,

LEONARD WOOD,
Major-General, U. S. Volunteers, Commanding.

FINAL REPORT OF BRIG. GEN. JAMES H. WILSON, U. S. VOLUNTEERS, COMMANDING THE DEPARTMENT OF MATANZAS AND SANTA CLARA.

HEADQUARTERS DEPARTMENT OF
MATANZAS AND SANTA CLARA,
Matanzas, Cuba, July 22, 1900.

The ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

(Through military channels.)

SIR: I have the honor to submit herewith the annual report of affairs, both civil and military, for the Department of Matanzas and Santa Clara, during the fiscal year ending June 30, 1900.

Of the United States forces serving in this department, the organizations have remained the same as at the close of the fiscal year 1899. There have been but a few gains and losses as to officers and men, as shown by the following table:

Organization, June 30, 1900.

	Officers.		Enlisted men.		Total enlisted men.	Aggregate.
	Present.	Absent.	Present.	Absent.		
General officers and staff	9					9
General staff	4		107	7	114	118
Second Cavalry	23	21	1,076	57	1,133	1,177
Second Infantry	24	10	829	38	867	901
Tenth Infantry	22	15	768	23	791	828
Attached	1					1
Total	83	46	2,780	125	2,905	3,034
Staff officers attached	7					
Acting assistant surgeons	19					
Total July 1, 1899	79	67	3,168	232	3,400	3,546
Staff officers attached	8					
Acting assistant surgeons	30					
Gain: June 30, 1900	4					
Loss: June 30, 1900		21	388	107	495	512
Staff officers attached	1					
Acting assistant surgeons	11					

These troops have remained in the same quarters throughout the year, part of these quarters being repaired Spanish barracks, and part cheap frame buildings, with corrugated iron roofs. The necessary repairs and slight improvements have been made at the various posts. The most comfortable and satisfactory posts in the department are Rowell Barracks, at Pasa Caballos, and Hamilton Barracks, at Matanzas, but it is doubtful whether this additional comfort can be attributed to the new buildings erected at these two posts in accordance with American models. It is believed for the average location, away from the seacoast, that the Spanish barracks are preferable. The main disadvantage of these barracks is that they do not conform to the American system of having officers live in the immediate vicinity of the troops. In some instances we have been compelled to quarter officers some distance from their commands, and out of sight of them. In the cities some of the officers have lived at hotels, some in private houses, and all of them more scattered from the troops and from each other than is customary in our service. In other cases where they have been required to live in the immediate vicinity of their barracks, it has resulted in their being forced to live in quarters hardly suitable to officers of the American forces.

The number of officers absent from the troops and performing various civil and quasi civil duties, thereby affecting the instruction and efficiency of their regiments, has remained about the same throughout the year. In this connection attention is invited to my recommendation of July 10, in an indorsement on annual report of inspector-general of the department, which recommendation is herewith renewed, as follows:

I fully concur in all that he says in reference to the necessity for additional officers. My experience, extending over two wars, convinces me that the exigencies of service, both in peace and in war, are such, and will probably always remain such, as to require a much larger percentage of officers than is at present allowed. In my judgment there should be 1 major, 5 captains, and 5 first lieutenants, extra, to every regi-

ment in the Army, to meet the multifarious details that are always necessary where commands are widely scattered and where the troops are serving in actual warfare, especially in foreign countries.

While the detachment of the officers from their troops has resulted in injury to the latter, it is gratifying to say that all civil duties which have been intrusted to the officers have been fully and faithfully performed. In this connection comparison might well be made between the services rendered by military and civil officials. The accounts of all army officers receiving and disbursing island funds have been regularly inspected by the various officers of the inspector-general's department, and have in every instance been found to be correctly and honestly kept.

Military instruction has received careful attention throughout the past year, and the improved appearance and increased efficiency of the troops show sufficiently well the effects of it. As the result, however, of another year's experience in the tropics, it has been found advisable to crowd all indoor instruction, theoretical and practical, into the summer months, reserving the five months, November to March, inclusive, for active outdoor drill, target practice, practice marches, reconnaissance, and scouting.

The relations of the troops and the inhabitants of the country, with few exceptions, have been all that could be desired. The conduct of the inhabitants has been cordial and friendly. Perfect quietude and mutual forbearance have prevailed throughout the entire year, and no disorders or disturbances whatever have arisen requiring the presence of troops outside of their posts.

The multifarious duties devolving upon the adjutant-general's department have been promptly and faithfully performed. All the details, both of military and civil business, have been attended to by this department, and all orders for both military and civil business have emanated from this department, thus saving the expense of maintaining a separate office force. (For further details as to service performed see report of adjutant-general. Appendix A.)

The usual inspections of military posts have been made by the inspector-general of the department. In addition, much work has been done with reference to the condition of cities, and municipal affairs existing therein, and the inspector has been called upon many times for the investigation of particular questions arising. With reference to the latter questions, much of the work has been done by the inspector of police of this department. (Attention has been invited to reports of inspector-general and of inspector of police. Appendices B and I respectively.)

The work devolving upon the judge-advocate's office of this department has been thoroughly and satisfactorily performed. The amount of civil work thrown upon this office has greatly diminished, as the courts have become better organized and the people have learned to feel more confidence in the administration of the laws of the land. However, the civil business still requiring investigation and decision by this office consumes as much or more time than is required by the work arising in purely military administration. (For further details as to service performed see report of judge-advocate. Appendix C.)

The medical department has continued to discharge the various duties devolving upon it successfully and with credit to the officers concerned. The sanitary inspections of all the larger cities have fallen

upon officers of this department, and the good conditions existing at present, by which these cities are freed from the yearly scourge of yellow fever and other tropical diseases, is in a large manner due to the efficient, intelligent, and earnest manner in which the work of sanitation has been performed. With the exception of the yellow fever now existing among the troops at Santa Clara, there have been no outbreaks of epidemics in the department, and in this instance the outbreak is one for which the troops themselves can not be blamed nor can the sanitary inspectors. It has been directly traced to houses which had been infected some years previous, by the occupation of Spanish troops, and the fact of this infection having been concealed by the inhabitants of the town, its existence could not be known to the sanitary inspectors, nor could it be successfully guarded against. So far as the troops are concerned the greatest loss of men from duty has been from venereal disease. This is partly owing to the fact that but little control is kept over the houses of prostitution by the civil authorities. Under my direction the houses have been regularly inspected, and weekly and biweekly inspections have been held of the individual soldiers, under the personal charge of the surgeons, with most satisfactory results. (Special attention is called to the report of Chief Surgeon Ives, in reference to this important matter. Appendix D.)

As in other administrative departments, the quartermaster's department has transacted a large share of the civil business. Disbursements from island funds for public works of all kinds have been made by army officers, and, wherever practicable, by the quartermasters. The chief quartermaster of the department has been the chief disbursing officer. At the same time the quartermaster's work with reference to the troops has been thoroughly performed. They have been well quartered, well clothed, and amply supplied with transportation, which is of excellent quality. (For further details as to service performed see reports of chief and disbursing quartermasters. Appendices E and F respectively.)

The work done by the subsistence department has been materially lessened by transferring the supply of food for the destitute to the different Alcaldes throughout the department. The ration furnished for the troops has been in the main satisfactory. Very few complaints or recommendations have been made, though all company and post commanders still insist that the profits of the post exchange are necessary for supplementing the ration furnished. In this connection I desire to renew my recommendation of July 10, that the ration of each soldier be increased by a daily allowance of 5 cents, to provide for the proper supply of fresh vegetables, and such articles as can be advantageously purchased where the troops may be serving, and to obviate the necessity of profits from the post exchange as an adjunct to the army ration. The supply of ice has not been as abundant nor as satisfactory as desired. A more liberal supply would be advantageous to the troops, and the supply for the civil population is entirely inadequate and too expensive. (For further details as to services performed see report of chief commissary. Appendix G.)

The duties of the signal service have been fully and satisfactorily performed. Some new telegraph lines have been built, others repaired, and the service in every way improved and bettered. The work falling upon this department has at times been heavy, especially in the recent elections, but it has fully performed all services demanded of it. The

telephone line from Trinidad to a connection with the central line of the island has not yet been constructed, but it is urgently needed, as I have frequently recommended. (For further details as to service performed, see report of signal officer. Appendix H.)

The work performed by the chief ordnance officer of the department has been merely routine office work, all supplies being furnished from the depot at Havana, except small arms ammunition, of which a small reserve supply has been kept on hand here. The duties of inspector of small arms practice have also been performed by the acting chief ordnance officer of the department. The course of instruction in target practice, prescribed by orders from division headquarters, has been held. (For further details see reports of ordnance officer and inspector of small arms practice. Appendices J and K respectively.)

There has been an immense amount of work devolving upon the office of the chief engineer of the department, all of which has been faithfully performed. Practically all of this work has pertained to the civil affairs rather than military, consisting of reconstruction of public works and sanitation. (For further details see report of engineer officer. Appendix L.)

HEADQUARTERS DEPARTMENT OF MATANZAS AND SANTA CLARA, MATANZAS, CUBA.

Staff officers on duty at department headquarters for the fiscal year ending June 30, 1900.

PERSONAL STAFF.

James H. Reeves, first lieutenant Second Cavalry, aid-de-camp, acting ordnance officer and inspector of small arms practice, from January 31, 1899. This officer has served with great intelligence and fidelity, and to my entire satisfaction.

G. Soulard Turner, first lieutenant Tenth Infantry, aid-de-camp, from October 27, 1899. This officer has shown himself to be intelligent, active, and competent. Although recently appointed to the service, he is in every way qualified for the duties of his position.

Alga P. Berry, first lieutenant Tenth Infantry, aid-de-camp, acting ordnance officer and inspector of small arms practice, from October 14, 1899, to January 31, 1900.

DEPARTMENT STAFF.

E. J. McClernand, lieutenant-colonel, acting adjutant-general, U. S. Volunteers, adjutant-general from July 6 to August 20, 1899. This officer was relieved to accept the position of colonel in the Forty-fourth Regiment of Infantry, U. S. Volunteers. He was highly commended in my last year's report, and it gives me pleasure to add that he is an officer of the highest merit and character.

E. St. J. Greble, major, assistant adjutant-general, U. S. Volunteers; adjutant-general from September 19, 1899, to February 21, 1900. This officer was relieved to accept a position on the staff of the major-general commanding the division. During his service with me he showed himself to be an officer of high accomplishment, great ability, and strict attention to duty.

Sumner H. Lincoln, lieutenant-colonel Tenth Infantry; acting adjutant-general from February 27, 1900. This officer is a gallant veteran of the war of the rebellion and of the Spanish war, in both of which he was wounded. He has shown himself to be highly competent as an adjutant-general, and most conscientious and faithful in the performance of all his duties. He is again suffering from his wounds, and I trust will receive a leave of absence for surgical treatment as soon as the affairs of this department are closed.

J. H. Dorst, major, Second Cavalry; acting adjutant-general to July 6, 1899; acting inspector-general from July 7 to August 17, 1899. This officer, although he served with me but little over a month, impressed himself upon me as being worthy of the highest rank obtainable. He was strongly recommended by me, and left my staff to take command of the Forty-fifth Regiment of Infantry, United States Volunteers, at the date of its organization.

Frederick S. Foltz, captain, Second Cavalry; acting inspector-general to July 7, 1899; acting assistant inspector-general from July 7 to October 8, 1899; acting inspector-general from October 8, 1899; acting engineer officer from July 11 to 29, 1899, and from October 8 to 28, 1899. This officer has shown himself to be in every way capable of performing delicate and important duties, and has served with me to my entire satisfaction. His versatility well illustrates the advantage of an education at the United States Military Academy.

Harvey C. Carbaugh, major, U. S. Volunteers; judge-advocate to October 5, 1899; acting assistant adjutant-general from August 19 to September 19, 1899. This officer left me for duty in the judge-advocate-general's department, where he is now serving. He showed himself to be in every way capable of performing the difficult and delicate duties with which he was charged.

William J. Glasgow, first lieutenant, Second Cavalry; captain and acting judge-advocate from October 5, 1899; aid-de-camp to October 4, 1899; acting ordnance officer to October 14, 1899; inspector of small arms practice from July 25 to October 14, 1899; acting adjutant-general from November 15 to December 5, 1899, and from February 21 to 27, 1900. This officer has served with me as aid-de-camp, ordnance officer, acting adjutant-general, and judge-advocate, and has discharged his various and exacting duties with fidelity, intelligence, and industry.

James B. Aleshire, major, quartermaster, U. S. Volunteers; chief quartermaster to October 28, 1899. This officer served with me as chief quartermaster of the First Army Corps, which he moved from Kentucky to Georgia, and thence to the island of Cuba, where he became chief quartermaster of this department. He is intelligent, active, methodical, and capable of filling any position in his department, from Quartermaster-General of the Army to quartermaster of a department or division.

William H. Miller, major, chief quartermaster, U. S. Volunteers; chief disbursing officer of civil funds; acting chief quartermaster to November 6, 1899; chief quartermaster from November 6, 1899. This officer has served with me from the date of the consolidation of the Departments of Matanzas and Santa Clara as chief disbursing officer of civil funds. He has performed all of his duties to my entire satisfaction. He is methodical, watchful, careful, and competent to fill the highest position in his department.

George S. Cartwright, major, quartermaster, U. S. Volunteers; depot quartermaster at Matanzas to May 30, 1900. This officer has served under my command from the date of our arrival in this island until May 30, when he was promoted to be chief quartermaster of the Department of Habana and Pinar del Rio. He is an officer of excellent character and abilities.

H. B. Chamberlain, captain, assistant quartermaster, U. S. Volunteers; assistant to the chief quartermaster from July 7, 1899. This officer has had special charge of the renovation of Spanish barracks, and of the repair of jails and streets in the interior towns, and has discharged his various duties to the satisfaction of his immediate superiors as well as myself.

Walter B. Barker, captain, assistant quartermaster, U. S. Volunteers; depot quartermaster at Cienfuegos.

M. R. Peterson, major, commissary of subsistence, U. S. Volunteers; chief and depot commissary at Matanzas. This officer has served on my staff and under my observation since January 12, 1899, and has given entire satisfaction. He has recently been promoted and ordered to duty as chief commissary of the military division.

George LeRoy Brown, major, Tenth Infantry, acting chief and depot commissary from September 25 to November 30, 1899. In addition to his duties as depot commissary, Major Brown has performed various duties of inspection of money accounts and civil affairs. He was subsequently appointed collector of customs at Cienfuegos, and has discharged all of his duties with fidelity and intelligence.

E. B. Fenton, captain, commissary of subsistence, U. S. Volunteers; depot commissary at Cienfuegos from July 25 to September 21, 1899.

Frank J. Ives, major and surgeon, U. S. Volunteers; chief surgeon, superintendent of correctional and charitable institutions from December 26, 1899. This officer has performed his duties as chief surgeon with high professional skill and success. As superintendent of charities and corrections he has done a great deal of most excellent and intelligent work. His report for the year is specially commended to the attention of those in higher authority and especially to the Surgeon-General.

James H. Hysell, major and surgeon, U. S. Volunteers; sanitary inspector to February 5, 1900. This officer performed his duties as chief surgeon of the Department of Santa Clara; of sanitary inspector of that province, and on my staff until ordered to duty as chief surgeon of the Department of Santiago and Puerto Principe. He has shown himself to be highly intelligent and efficient in all his work.

Lewis Balch, major and surgeon, U. S. Volunteers; sanitary inspector to August 29, 1899. This officer came into the island with the first United States troops, serving under my observation to the date just mentioned, at which time he was relieved to go to the Philippines. He is a gentleman of high intelligence, energy, and activity.

J. Hamilton Stone, first lieutenant, assistant surgeon, U. S. A.; assistant to the chief surgeon from February 19 to June 14, 1900. This officer has shown himself to be exceedingly intelligent and devoted to his duty.

James B. Houston, major, additional paymaster, U. S. Volunteers; chief paymaster from August 15, 1899, to April 20, 1900. This officer is one of the most rapid, accurate, and successful paymasters in

the service. He is competent by education, character, and ability to fill any office in the corps to which he is attached.

Otto Becker, major, additional paymaster, U. S. Volunteers; additional paymaster stationed at Cienfuegos from September 5, 1899. This officer has served as additional paymaster, and has only recently joined the department staff. He is painstaking, careful, and accurate.

John Biddle, captain, Engineer Corps, U. S. A.; chief engineer officer to September 19, 1899. This officer served with me as chief engineer of the Sixth Army Corps, First Army Corps, and in the expedition to Porto Rico. He preceded me with the first troops into this department, and has shown himself to be an officer of enterprise, courage, skill, and ambition. He was relieved September 19, 1899, at his own request, for service in the Philippines, where he is now chief engineer of the military division. He is an ambitious and rising officer and sure to give an excellent account of himself in the future.

William J. Barden, first lieutenant, Corps of Engineers, U. S. A.; engineer officer from October 28, 1899. This officer succeeded Colonel Biddle as chief engineer of the department, and has performed all his duties to my entire satisfaction.

Samuel Reber, captain, Signal Corps, U. S. Volunteers; chief signal officer to August 6, 1899. This officer served with me in the Sixth and First Army Corps, accompanied me to this department, and was constantly engaged in the various duties of his position. He is a scientific electrical and civil engineer, and is fully capable of organizing and running a signal department for an army of any size. He is an officer of vigor and ambition.

Frank E. Lyman, first lieutenant, Signal Corps, U. S. Volunteers; assistant to signal officer to August 6, 1899; signal officer from August 6 to October 26, 1899.

William M. Talbott, first lieutenant, Signal Corps, U. S. Volunteers; signal officer from December 28, 1899, to June 9, 1900. This officer has performed all of his duties to my entire satisfaction.

Charles B. Rogan, first lieutenant, Signal Corps, U. S. Volunteers; signal officer from November 6 to December 28, 1899, and assistant to signal officer from December 28, 1899, to June 9, 1900; signal officer from June 9, 1900. He has performed all of his duties honestly and faithfully, and as he is intelligent and well educated, he may reasonably hope for distinction if he remains in the service.

Charles J. Stevens, captain, Second Cavalry; inspector of rural police to September 22, 1899; provost marshal from July 7 to September 22, 1899. He performed his duties to my entire satisfaction, and was relieved to take command of his troop at his own request.

Francis J. Kernan, captain, Second Infantry; provost-marshal to July 7, 1899. In addition to the duties of provost-marshal, this officer performed the duties of inspector of rural police. He is capable of performing the duties of any staff department, and is an officer of high character and abilities.

Eli A. Helmick, captain, Tenth Infantry; acting inspector-general from August 19 to October 8, 1899; acting engineer officer from September 19 to October 8, 1899; acting provost-marshal and inspector of police from September 22, 1899. This officer has performed the various and exacting duties of his position with marked ability and care. He is methodical, attentive, and capable. His judgment is excellent, and he is sure to rise to distinction in the service.

William A. Phillips, captain, Tenth Infantry; inspector of schools from March 2, 1900. This officer was specially selected to perform the duties of inspector of schools, having been a school teacher and president of a teachers' institute before he entered the Military Academy, and since then having been a professor of engineering, military science, and mathematics in a civil college, he is peculiarly fitted for the work with which he has been charged. His system of inspection reports was adopted by the chief of staff of the military division as the standard for other departments. He is able, attentive, and versatile. The chief engineer of the department having been relieved, Captain Phillips has been designated to take charge of the engineering and sanitary works belonging to that department.

It gives me great pleasure to say that the officers serving on my staff, as well as those attached to the various regiments in this department, have shown themselves, with scarcely an exception, to be gentlemen of the highest character, devoted to their duty, competent, and in every way creditable to the Army and to the country. There have been but few courts-martial, and even those grew out of accidents in no way reflecting upon the moral character or standing of the gentlemen concerned.

Notwithstanding that all these officers have done their duty in so satisfactory a manner, there are a number who deserve special mention.

Col. Ezra P. Ewers, Tenth Infantry, commanding the garrison of Matanzas, has done much by his considerate and careful intercourse with the Cubans to establish and maintain the harmonious relations that exist in this city between our troops, the civil authorities, and the population.

Maj. R. W. Hoyt, Tenth Infantry, at Cárdenas, has proved himself an officer of great value, not only in maintaining the best relations with the people of that city, but has displayed excellent judgment in the prosecution of civil works that were carried on there under his supervision.

Capt. Henry Kirby, Tenth Infantry, at Cárdenas before Major Hoyt, also deserves commendation for his conscientious and energetic work at that place.

Col. Henry E. Noyes, Second Cavalry, at Santa Clara, has been largely occupied with civil matters and has displayed great judgment and delicacy in his relations with the civil authorities of the province of Santa Clara.

Capt. W. M. Wright, Second Infantry, proved himself by his considerate conduct and careful attention to business to be exceedingly valuable in civil work at Sagua la Grande, and later Capt. H. H. Bandholtz, at the same point, carried forward and completed the work with especial energy and good judgment.

My thanks are also due to Capt. H. H. Benham, Second Infantry, at Trinidad, and Capt. F. P. Fremont, at Sancti Spíritus, where they have both filled positions of great delicacy with entire disregard of their own convenience and interests and to my great satisfaction.

CIVIL AFFAIRS.

The conditions existing at the beginning of the fiscal year are set forth in my annual report of last year and the special report accompanying it.

Early after the beginning of the fiscal year the last of the Cuban troops had received their proportion of the money appropriated by the United States and the last vestige of the organization had disappeared. From that time the problem confronting the government in this department has been purely a civil and economical one, as there has been no occasion requiring the employment of any military force whatever.

At the beginning of the fiscal year the towns and cities of the department found themselves burdened with debts accumulated in the past months which they had no sufficient revenues to cover, as real estate, from which their revenues had formerly been derived, had been exempted from taxation in order to enable them to recover more rapidly from the effects of war and from the commercial depression resulting therefrom.

Before the insular government could limit this indebtedness the budget of these municipalities had to be put in proper shape. The disorder existing in their accounts had resulted from the unsettled conditions following the war and the uncertainty as to whether the bookkeepers and clerks, or even the mayors themselves, would receive compensation for their labor.

The proper indebtedness of all the municipalities from the date of the American occupation to the 1st of January, 1900, having been finally worked out and passed upon, their deficits were paid by funds allotted from the insular treasury, and they were thus enabled to start afresh with their expenses under the new régime definitely limited by the intervening government. The number and pay of the police was fixed and the number and salaries of other municipal officers regulated by order of the Governor-General in accordance with the necessities of the place and conditions. The schools, charities, hospitals, and prisons were looked after by the general government, and the only thing for which the municipality still had to provide an income was for the needs of the town for salaries, light, water, and conveniences, and in towns not occupied by United States troops, for sanitation also. The municipalities were able, from the small revenues obtained by licenses and taxes on business stands, street vendors, public conveyances, etc., to meet these small necessities. In some cases they availed themselves of the rent of buildings belonging to the municipality, such as market houses and other property suitable for stores. Hospitals, charities, and jails during the first part of the year required a large outlay of money to put them in such a condition that proper cleanliness and discipline could be required of their custodians.

Some of the charitable institutions had up to the time the intervening government began to aid them been supported by substantial contributions from bequests, investments, and private charity, or from the treasuries of the religious orders which controlled them. It has been found that, once the institution was known to be in receipt of government assistance, all private contributions ceased, the people acting on the theory that the government would now look out for such institutions, leaving them at liberty to bestow their charity otherwise. As it was not the policy of the government to give absolute control of an institution supported by public funds to any religious order, these orders in several cases withdrew not only their financial assistance, but also their personal aid in their management and conduct. All the asylums are now in excellent condition as to buildings and equipment, but the need of trained managers is felt. It is thought

that if managers of experience from the United States could be employed in the principal institutions for a limited time—say one year—the Cuban superintendents under their instruction would thereafter be able to carry on the work upon approved methods, so as to secure healthful employment of the children under their care and break up the system of merely killing time, upon which theory the management of these institutions seems to have been carried on under the Spaniards. While much good is expected from the asylums as they are developed into manual training and agricultural schools, yet it is believed that the number of inmates is at present entirely too large, and that systematic effort would result in returning many of these children to the care of relatives who are now or may hereafter become able and willing to support and properly care for them.

The civil hospitals, on which great attention has been bestowed, have been in many cases reconstructed and are now in excellent condition. Great benefit has been derived from the presence in these hospitals, as well as in some of the asylums, of trained nurses and kindergartners from the United States. The results of their training as nurses and instructors will become more evident in the near future, as they are just now finding themselves supplied with appliances and the means for carrying out their ideas of management.

These hospitals would offer to the young medical student great opportunities for practice and experience, but it would seem that there is no great competition for the positions as ward physicians, there being difficulty, it is said, in finding such as are willing to undergo the inconvenience of being on duty at night. It is believed that if these opportunities for practice were offered to the more ambitious and energetic young medical graduates, this difficulty would disappear.

The condition of the jails from the time of our entering the island was a source of much trouble and concern. In spite of decrees aimed at hastening the administration of justice, and in spite of the fact that a large number of prisoners under sentence for political and military offences had been released by military order soon after our occupation, the jails continued rapidly to fill up and the number of prisoners—almost all awaiting trial—continued to increase from day to day. The situation was frequently brought to the attention of those in higher authority, and the jails were again cleared by a commission appointed by the Governor-General. The methods of legal procedure were also modified in such a way as to compel the attendance of witnesses and to secure the payment of their fees. Under these conditions and with the assistance of the correctional or police courts, which have just been organized, it is not anticipated that the problem of the jails will occur again.

In connection with the jails it is to be noted that there was no provision for the care of the violently insane, who, under Spanish practice, were confined in cells of the regular jails for observation. The sight of these poor creatures, like caged wild animals, was one of the most revolting spectacles to be seen in Cuba. These insane people are at this time sent to Habana, where they are kept in separate institutions for observation and treatment.

For further details as to the hospitals, asylums, and jails, special attention is invited to the full and able reports submitted from time to time on these subjects by Maj. Frank J. Ives, chief surgeon, and to his final report submitted herewith, marked "Exhibit M."

ELECTIONS.

The recent municipal elections passed in these provinces without the slightest disturbance to public order. A few weeks previous to the election it was reported to me that in some of the municipalities of Santa Clara the existing municipal authorities and some members of the rural guard of the province had been giving out that certain candidates had been indicated by the Government, following the old Spanish system. This was evidently with the hope that the more timid voters might be influenced in this way. I took occasion to make a trip through the provinces and to visit particularly these localities in which the rural guard and authorities were said to be active partisans in the campaign. All officials were cautioned to refrain from interference in the elections, or from advocating any candidate over another. The rural guard was ordered away from two municipalities where it had been alleged that they had been acting as partisans, but it was not deemed necessary to supply their places by ordering United States troops into the vicinity. The correctness of this opinion was proved later when the elections were held in these towns without the slightest disturbance. The precaution was taken of ordering all municipal guards to confine themselves to their barracks throughout the hours of election, except when going to and returning from the polls, which they were required to do without arms and one at a time. The municipal police on that day were hardly in evidence on account of the necessity for one of them at every outlying suburb where there was a voting place.

The excellent order everywhere preserved was due to the individual effort of the civil authorities and people themselves, who, though in some instances fearing disorder, had determined that it should not come from them or from their party. A remarkable instance of the degree to which this determination to have a quiet election was carried was exhibited in one town where the rival candidates agreed that when a demonstration was made in favor of one, he should appear escorted by leading men of the other side, in order to show the people that though there was rivalry there was no enmity.

The temperate character of the people made election day throughout the department appear more like a Sunday than a day of anxiety. No drunkenness nor disorder of any kind was observed. I had officers observing the election at different points in the department, but they had no occasion to take any action whatever to preserve order. The election seems to have also passed with few or no attempts at fraud, and their results have been frankly accepted as the fair expression of the popular will by the defeated candidates and their supporters. As a general rule in this department the contests were purely personal, there being little or no difference in the principles of the opposing candidates.

It should be observed that one of the first duties the municipalities will have to perform upon receiving full authority to collect taxes and to disburse them according to their own judgment, will be to reduce the number of their officials and employees. Quite a number of these municipalities and barrios are too small and too poor for separate existence. It will require, however, a rude shock to banish the firmly rooted idea that a dying town, like a dying individual, should be nursed back to life. There are many municipalities which have for years been kept alive by the assistance of the insular government.

Their disappearance, or their absorption by the adjoining municipalities, would be beneficial to all concerned, as it will facilitate the formation of counties and the equitable distribution of political power.

No rural guard was organized in the province of Matanzas in the belief that a proper municipal police would subserve all necessary purposes and free the people from the dominating influences of an armed military organization controlled by a central authority. This expectation has been sustained by experience. The province of Matanzas with few more municipal police than the province of Santa Clara, has not felt the need of a rural force. The rural guard of Santa Clara, while an excellent organization and while rendering good service, is felt to be no longer necessary, and though its numbers have been largely reduced, it should be immediately absorbed into the municipal police, as has been repeatedly recommended from these headquarters.

There has been but little yellow fever among the troops of this department. In the month of May the disease made its appearance for the first time in the garrison of Santa Clara, where it was traced to a dwelling that had been used as a pest house. For the reason that our sanitary officers were kept in ignorance of its history, it had received only the regular disinfection, the owners evidently fearing that they would injure its rental value if its history were made known. This outbreak has been checked, and there are now no cases of yellow fever under treatment in the entire department.

I consider it a subject for congratulation that this scourge has not yet appeared at Cienfuegos, Matanzas or the other seaports, although this has been a wet summer, and, according to the natives, particularly favorable to the development of the germ. It is to be expected that in spite of the cleanliness which has been everywhere enforced there will be later in the season, as there were last year, a few sporadic cases, but it is hardly probable that the disease will give serious trouble this year.

The statistics obtained last year give the area of Matanzas as 3,700 square miles and of Santa Clara 9,560, making the total area of the department 13,260, slightly larger than the figures given in my last report. The population according to the census is, Matanzas 202,444 and Santa Clara 356,536, making a total of the department of 558,980 or about 58,000 more than was estimated. It was found that the ratio of whites to colored is two to one, and this is in accordance with the prediction contained in my last report.

A large number of work oxen have been imported in both of the provinces during the past year, though the number on the land is still insignificant compared with what it should be for efficient agriculture. There is no longer any need for the gratuitous issue of rations, except to the aged infirm, and it has for some time been entirely suspended.

The remarkably favorable year for tobacco has greatly helped the laborer and small farmer of the tobacco districts of Santa Clara. The crop now being marketed amounts to 546,122 quintals of 100 pounds each, which at the low prices now offered is valued at \$8,191,830, or more than double the value of the crop of last year. The benefit of this crop to the laborer without capital can not be overestimated. It requires no outlay for machinery and little for animals, and after it is gathered it gives occupation to men, women, and children in the various operations of curing, selecting, and preparing it for market.

An experiment, in a small way, has been made with much success in the tobacco region near Sagua la Grande of supplying farmers with oxen and implements at cost price and on reasonable terms of payment, and sending them out from the town to establish themselves in colonies. It was desired to locate them on land where they could eventually buy their farms at fair prices, to be fixed beforehand. It was found, however, that the owners of large tracts were generally unwilling to part with small pieces for fear that they should have the remnants on their own hands. The experiment is, however, entirely successful in its main features. The farmers are all self-supporting and many of them will anticipate the payments upon their cattle and implements. A similar experiment has been made and similar results obtained at Sancti Spiritus under the supervision of Captain Fremont, Second Infantry, aided by Father Castillo, a worthy parish priest of that city. At the urgent solicitation of the civil governor of the province of Matanzas help of the same sort was extended to twenty-two families in the neighborhood of the city of Matanzas, but owing to the lateness of the season and the less advantageous situation of the farmers, the result has not been quite so satisfactory. The cattle were young and unbroken, but have materially improved in value and in several instances the purchasers will be able to anticipate payments due upon them, but for the most part the experiment has not gone far enough to justify the statement that it is entirely successful.

What has been said about small farms applies only to the tobacco country, of which little is found in the province of Matanzas. This province is specially adapted to cane, and even in localities similar in appearance to the best districts of Santa Clara, it has not yielded good results to the tobacco grower. The province of Matanzas is divided into large sugar estates and sugar-cane farms, and on account of the unusually dry summer and autumn of last year but a very small crop was raised. This province has consequently not felt the stimulus that was expected, but great additions have been made to the acreage of sugar cane, and the growing crop, with average weather, should be a remarkably good one. It is estimated that the output of sugar for the season of 1900-1901 will be double that of last year, or at least 600,000 tons.

While I feel sure that a large majority of the people of the province are in favor of independence and are impatient at what appears to them to be the slow progress that has been made in that direction, yet there are others who, while wanting annexation in its full sense or a dependency in some measure, still feel the same impatience with the existing delay. There are few, principally the owners of large sugar estates, who are urging delay and would delay indefinitely so long as the measures proposed do not lead positively toward the realization of their wishes.

The impatience alluded to above is perhaps natural. Obviously the Foraker resolution, so long as it continues in force, will be regarded by many as standing in the way of prosperity, but in my judgment it should not be repealed until the government of the island is definitely established. Meanwhile no enterprises requiring public franchises can be undertaken.

It will be observed in this connection that the greatest needs of the island are not at present for transportation, street railroads, water and light companies, but for the establishment of such trade relations with

the United States and other neighboring countries as will stimulate agriculture, commerce, and immigration. Many Cubans who have been abroad, on their return to the island after the close of the war, looked confidently for a large extension of railroads, for the reduction of freight rates, and for the introduction of American methods in handling freight and passengers as the surest panacea for the ills under which the agricultural classes at least are suffering. So far none of these expectations have been realized, nor can they come until prosperity has been reestablished, which in turn will most surely be delayed until favorable commercial treaties have been negotiated and local self-government has been established. Beyond slight repairs to the road beds and a little retouching of passenger coaches there is no improvement apparent in the railroads of this department.

The highways which have been undertaken by the department of public works have made but little progress, and the poorer people who were accustomed to bringing their produce to market on the backs of sumpter animals feel but little necessity for better roads, which can come only with such a degree of prosperity as will justify the people in taxing themselves sufficiently to pay the expenses of the highways now so loudly called for in some localities.

Our experience and observation for the year and a half of occupation has shown that the expense of covering the island with a network of good wagon roads, passable at all seasons with loaded teams, would be such as could be borne only by a dense and prosperous population. The nature of the soil and the presence almost everywhere of loose bowlders or ragged coral rock just below the surface, together with the terrific washing of the tropical rains, destroys and renders useless any road not thoroughly drained, macadamized, and provided with substantial bridges. After the first rain a dirt road, however well built, is cut up by the wheels of carts and wagons, and when dry is as rugged as though it were rock. The next rain enlarges the ruts, and practically obliterates the road.

In conclusion, I invite attention to my previous reports and their accompanying appendixes, calling attention to the fact that every statement as to existing conditions, every inference drawn therefrom, every expression of opinion based thereon, and every recommendation and prediction I felt called upon to make has been fully justified by the course of events in this department during the official year just closed. I predicted that the elections would result in the selection of the same men then in office, or of men of similar character. This prediction has been fully verified, and it is to be noted that in every instance the mayor and councilmen elected are revolutionists who either actually served in the field, or actively aided the insurgents with their money and influence.

In leaving the scene of my labors of the past year and a half, my cordial thanks are due and are rendered with great pleasure to Gen. Pedro E. Betancourt, civil governor of the province of Matanzas, and to Gen. José M. Gómez, civil governor of the province of Santa Clara, for their uniformly loyal and cordial support in the work of adjusting and modifying the government to suit the conditions that have been changing from day to day, and have often given rise to annoyances and vexations, which have always been satisfactorily disposed of through their intelligent cooperation.

To Gen. José de J. Monteagudo, chief of the rural guard of the province of Santa Clara, my thanks are also due for his active and untiring efforts in preserving order and restoring confidence of the agricultural population in the province of Santa Clara. Nor can I forget to thank Capt. Frederick Rasco, of the guard (his secretary), for the intelligent and soldierly manner in which he has always placed his remarkably fluent command of the best English and Spanish at the disposal of the military authorities. My thanks are no less due to Mr. J. Bernardo Junco, for his constant and intelligent attention to the duties of his position as official interpreter at these headquarters.

Whatever success has attended my efforts in behalf of the Cuban people and the maintenance of peace and the promotion of the general welfare is due largely to the cordial and intelligent support which has been extended to me by the military and civil officers whom I have mentioned in this report.

With the completion of this report at noon of this date, July 23, the Department of Matanzas and Santa Clara ceases to exist. A telegram just received announces its consolidation with that of General Lee, under the name of the Department of Western Cuba, with headquarters at Quemados.

In conclusion, I feel it my duty to say that, with a continuance of the good and successful management of insular affairs by the representatives of the intervening government, aided, as they have been, by the tranquility, patience, and tractability of the Cuban people, I do not doubt Cuba will become at an early date a rich, independent, well-governed country.

Very respectfully,

JAMES H. WILSON,
Brigadier-General, U. S. Volunteers,
Commanding Department.

REPORT OF BRIG. GEN. FITZHUGH LEE, COMMANDING THE DEPARTMENT OF WESTERN CUBA.

HEADQUARTERS DEPARTMENT OF WESTERN CUBA,
Quemados, Cuba, August 23, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.,

(Through Headquarters Division of Cuba.)

SIR: I have the honor to submit the following report concerning the administration of department affairs for the fiscal year ending June 30, 1900:

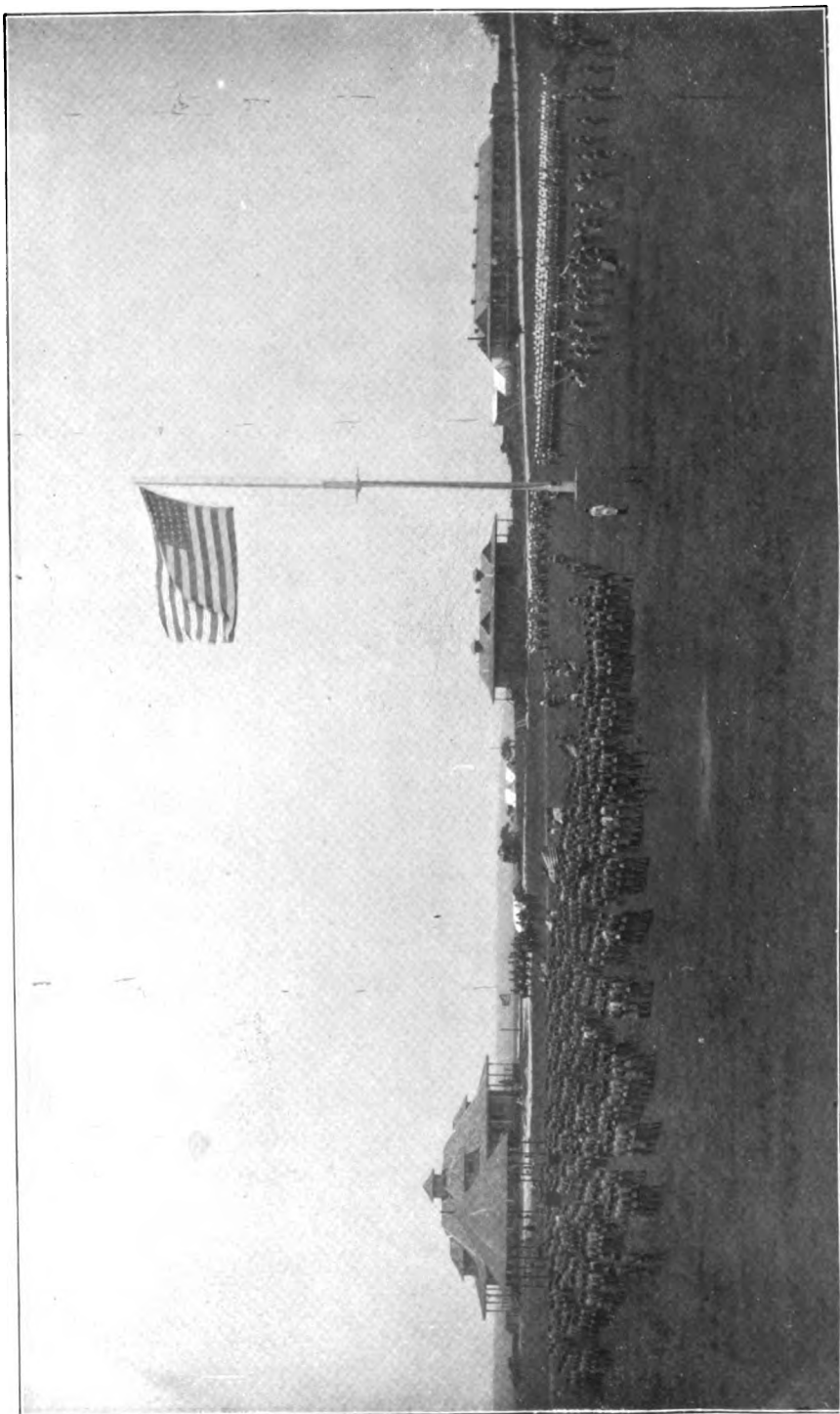
LIMITS OF DEPARTMENT.

Until May 1, 1900, the provinces of Pinar del Río and Habana, excepting the city of Habana and immediately surrounding country, constituted the limits of the department. The city of Habana formed the Department of Habana, and its extent was fixed and published in General Orders No. 4, Headquarters Division of Cuba, 1898.

On May 1 the territorial limits of the department were extended, pursuant to the following orders:



HEADQUARTERS DEPARTMENT OF WESTERN CUBA.



REVIEW OF TROOPS AT COLUMBIA BARRACKS, CUBA, BY BRIG. GEN. FITZHUGH LEE, U. S. V., AND STAFF.

[Corrected copy.]

GENERAL ORDERS, }
No. 47.

HEADQUARTERS OF THE ARMY,
ADJUTANT GENERAL'S OFFICE,
Washington, April 9, 1900.

The following order has been received from the War Department:

WAR DEPARTMENT, Washington, April 9, 1900.

By direction of the President, the Department of Habana and the Department of the Province of Habana and Pinar del Río will be consolidated on May 1, 1900, under the designation of the Department of Habana and Pinar del Río. Brig. Gen. Fitzhugh Lee, U. S. Volunteers, is assigned to the command of the department, with headquarters at Quemados.

In discontinuing the Department of Habana, constituted by the order of December 13, 1898, the President desires to express his high appreciation of the faithful and efficient service rendered by Brig. Gen. William Ludlow as military governor of Habana during the existence of the department. The maintenance of order attending and following the withdrawal of the Spanish forces, the organization of city government, the great reform of sanitary conditions resulting in the reduction in the death rate and exemption from epidemics reflect credit upon the responsible officer in command and his assistants and upon the peace-loving and law-abiding people of the city of Habana.

ELIHU ROOT, *Secretary of War.*

By command of Major-General Miles:

H. C. CORBIN, *Adjutant-General.*

GENERAL ORDERS, }
No. 1.

HDQRS. DEPARTMENT OF HABANA AND PINAR DEL RÍO,
Quemados, Cuba, May 1, 1900.

The undersigned hereby assumes command of the Department of Habana and Pinar del Río, pursuant to General Orders, No. 47, c. s., Headquarters of the Army, Adjutant-General's Office, which consolidates, to take effect this date, the former Department of Habana and the Department of the Province of Habana, and Pinar del Río into one military department.

FITZHUGH LEE,
Brigadier-General, U. S. Volunteers.

The Department of Habana and Pinar del Río continued until consolidated with the Department of Matanzas and Santa Clara pursuant to the following telegram and order:

Brig. Gen. FITZHUGH LEE,
Quemados.

WASHINGTON, D. C., July 21, 1900.

Secretary War directs in addition to your present duties you assume command of former Department of Matanzas and Santa Clara, which has this day been consolidated with Department Habana and Pinar del Río under name of Department of Western Cuba, headquarters remaining at Quemados. General Wilson has been directed by telegraph to turn over command to you.

H. C. CORBIN, *Adjutant-General.*

GENERAL ORDERS, }
No. 1.

HEADQUARTERS DEPARTMENT OF WESTERN CUBA,
Quemados, Cuba, July 24, 1900.

Pursuant to telegraphic instructions from the Adjutant-General's Office, dated Washington, July 21, the undersigned hereby assumes command of the Department of Western Cuba. This department consists of the former Department of Matanzas and Santa Clara and the former Department of Habana and Pinar del Río, comprising the provinces of Santa Clara, Matanzas, Habana, and Pinar del Río.

Existing orders and circulars of the former Department of Matanzas and Santa Clara will continue in force for troops stationed in that department until further orders.

FITZHUGH LEE,
Brigadier-General, U. S. Volunteers.

STATIONS OF TROOPS.

Columbia Barracks.—Commanded from August 1 to August 17, 1899, by Col. T. A. Baldwin, Seventh Cavalry; from August 18, 1899, to January 13, 1900, by Col. G. M. Randall, Eighth Infantry; and from January 13, 1900, to date, by Col. T. A. Baldwin, Seventh Cavalry. Garrisoned by headquarters and Troops A, B, D, F, H, K, L and M, Seventh Cavalry; all of Eighth Infantry until September 13, 1899, when the Third Battalion, Companies I, K, L and M, was sent to the United States as a depot battalion, and from that time by two battalions of Eighth Infantry until July 5, when regiment was ordered for duty in the United States; and by Light Batteries A and F, Second Artillery. (Light Battery F left for the United States August 8, 1900.)

Artillery defenses of Habana.—Commanded by Col. W. L. Haskin, Second Artillery, from consolidation of Department of Habana with the Department of the Province of Habana and Pinar del Río until date. Garrisoned by headquarters and Batteries G, H, I, K, L, M, N and O, Second Artillery.

Pinar del Río Barracks.—Commanded by Maj. E. S. Godfrey, Seventh Cavalry, from August 1 to August 4, 1899; by Lieut. Col. C. A. Dempsey, First Infantry, from August 4 to October 28, 1899; and by Col. A. A. Harbach, First Infantry, from October 28, 1899, to date. Garrisoned by headquarters and Companies A, B, C, D, E, F, G and H, First Infantry, until September 13, 1899, when Companies A, B, C and D were ordered to the United States as depot battalion, and by Troops C, E, G and I, Seventh Cavalry.

Guanajay Barracks.—Commanded by Capt. F. de L. Carrington, First Infantry, from August 1 to October 11, 1899, and by Maj. Fred. A. Smith, First Infantry, from October 11, 1899, to date. Garrisoned by Companies I, K, L and M, First Infantry.

Companies E and H, First Infantry, transferred from Guanajay Barracks to Pinar del Río Barracks. Left station and arrived at Pinar del Río September 26, 1899.

Companies K and M, First Infantry, transferred from Pinar del Río Barracks to Guanajay Barracks. Left station and arrived at Guanajay September 26, 1899.

At present there are only four military posts in the Department of Western Cuba, composed of the provinces of Pinar del Río, Habana, Matanzas, and Santa Clara.

First. Twelve troops of the Seventh Cavalry and one light battery are stationed at Columbia Barracks.

Second. The Second Artillery is located in the forts adjacent to and on both sides of the harbor of Habana.

Third. Twelve troops of the Second Cavalry are at Matanzas.

Fourth. Four companies of the Tenth Infantry are at Cienfuegos.

There are advantages in the concentration of troops in large central garrisons. The difficulty of supplying food and forage is lessened, and the health and discipline of the men are better cared for. These garrisons are so situated that troops can be rapidly thrown into any section of the department, should their presence be necessary, either by march, rail, or water.

Since my last annual report my duties have been confined more and more to those of a military nature, and not as before of a combination

of both civil and military, though still charged with the sanitation of towns which lie adjacent to the military posts, because the health of the troops depends to a great degree upon the sanitary measures enforced in the adjoining cities. I do not interfere with, nor take any part in the civil affairs of this department.

The United States having pledged in the interest of her own and foreign citizens, as well as the Cubans themselves, the pacification of the island, our soldiers are here for the preservation of peace and the protection of life and property whenever and wherever the civil authorities are unable to afford such protection.

The health and general physical condition of the American soldier in Cuba was of the greatest concern, and at first clearly experimental. It has been demonstrated, however, that a strict observance of sanitary regulations, and the careful and proper selection of the location of camps and barracks will give satisfactory results.

To-day the American soldier is as strong and healthy in Cuba, and with no greater death rate than would happen at the military posts in the United States. The present uniform, namely, campaign hat, blue chambray shirt, khaki pants, and the khaki coat when necessary, seems well adapted for service in this climate. The allowance of clothing, however, is not sufficient. Soldiers here get the same clothing as they do in the United States, but the weather, hot more or less during the whole year, combined with atmospheric causes, generates much perspiration which necessitates the washing of the clothing more often and its more rapid destruction.

In my last annual report I had the honor to recommend:

First. That the census of the island be taken.

Second. That a decision be reached regulating suffrage.

Third. That a modern system of jurisprudence be gradually introduced.

Fourth. That a constitutional convention be called under which executive, legislative, and judicial departments of government be organized.

Fifth. That the United States supervise Cuban matters until a form of government satisfactory to them be adopted.

Sixth. That the United States soldiers be retained for the present on the island to maintain if necessary the pledge to preserve peace and guarantee the supremacy of law.

Seventh. That the future of the Cuban Republic should be vested with the people.

These recommendations, it seems, have been in line with the policy the Government of the United States has pursued, except in the matter of the judiciary.

I respectfully protest against the soldiers of my command being thrown into Cuban jails, where they contract yellow fever and other diseases, and also against their being tried by Cuban courts. It has been well said the government of Cuba at present is the President of the United States, the island being ruled by his subordinates, who execute his orders, or their own, which he adopts if he does not revoke. It is rooted in Washington, not in Habana. We have a military control over Cuba, and it is earnestly hoped that we be permitted to confine and try our own soldiers in all things, and, if necessary, legislation should be had to that effect.

Many instances could be cited which have come under my own observation of the great difficulty experienced in getting prompt and satisfactory results from Cuban courts. In a report made to the military governor of the island by Gen. Leonard Wood, then commanding the Department of Santiago and Puerto Principe, dated September 20, 1899, he says:

The greatest of our needs now is a thorough reform of the judiciary and in the procedure. I do not mean an entire uprooting of the law of the land, but a radical modification, especially in the methods of criminal procedure. The present judiciary of this province is not doing efficient work. Evidences of indifference, if not corruption, are altogether too numerous. The prosecuting officers are not energetic as evidenced by prisons full of untried cases. The conduct of the judiciary, taken as a whole, during the past six months has been of such a character as to warrant grave doubts arising in the minds of the people as to the wisdom of giving testimony against criminals and outlaws, whom they find soon turned loose upon them again and in a position to take vengeance on those who have testified against them.

In the report of the judge-advocate of this department, accompanying this paper, in reference to this matter he writes:

As a rule, an American on trial in a Cuban court, even though his judge be the very embodiment of justice, has no chance for a full and a fair trial. He can not understand the charge made against him because it is in the technical language of the Spanish code. He can not understand the testimony presented by the prosecution because it is in Spanish, and consequently he is not able to advise his counsel what can be refuted. He can not, before his trial, communicate intelligently with his counsel in preparation therefor, nor can he, during his trial, call attention to points brought out in the testimony. His testimony in his own behalf and the testimony of such American witnesses as may be produced in his behalf must be translated by an interpreter, and he can not tell whether or not it is correctly translated. He can not understand the argument of the prosecution so as to advise his counsel how to answer it, and he can not know whether his counsel, in his argument, has made answer to what he could, and finally after trial and conviction no reviewing authority can determine whether or not the evidence against him was sufficient to justify a conviction, because no record is kept of the testimony produced on his trial.

Again, supposing that his judge is all that is upright and just; suppose that his counsel is all that is able and loyal; supposing everything to be in his favor that could be in his favor, he could not have a fair and full trial under such conditions.

All of which is in accordance with and confirmatory of my own views.

At the present time the first sergeant of troop G, Seventh Cavalry, a corporal, and two soldiers of the same troop have been charged with the murder of one of their fellow-soldiers for the purpose of securing his money. The first sergeant and one of the soldiers deserted. Both have been caught, the soldier in Habana, and the sergeant in Beira, Portuguese Africa. For nearly one month in the case of the sergeant I have been trying to obtain the necessary extradition papers from the judge of the first instance at Pinar del Río city, where the murder was committed, and before whom these soldiers are to be tried, in order to have this sergeant returned to Cuba, and though I have used every effort no result has been reached so far.

In the case of Private York, Battery I, Second Artillery, for the killing of Henry Fisher, a negro teamster, General Ludlow, then in command of the department in which this battery was stationed, directed that he should be tried by a general court-martial. The case was referred to Washington, and the Attorney-General, in an opinion dated May 9, 1900, says:

First. In the present situation of affairs in regard to Cuba, neither a court-martial nor a military commission should try Private York.

Second. Article 59, Articles of War, does not require him to be delivered to the Cuban courts, but it is nevertheless proper to permit such courts to try him.

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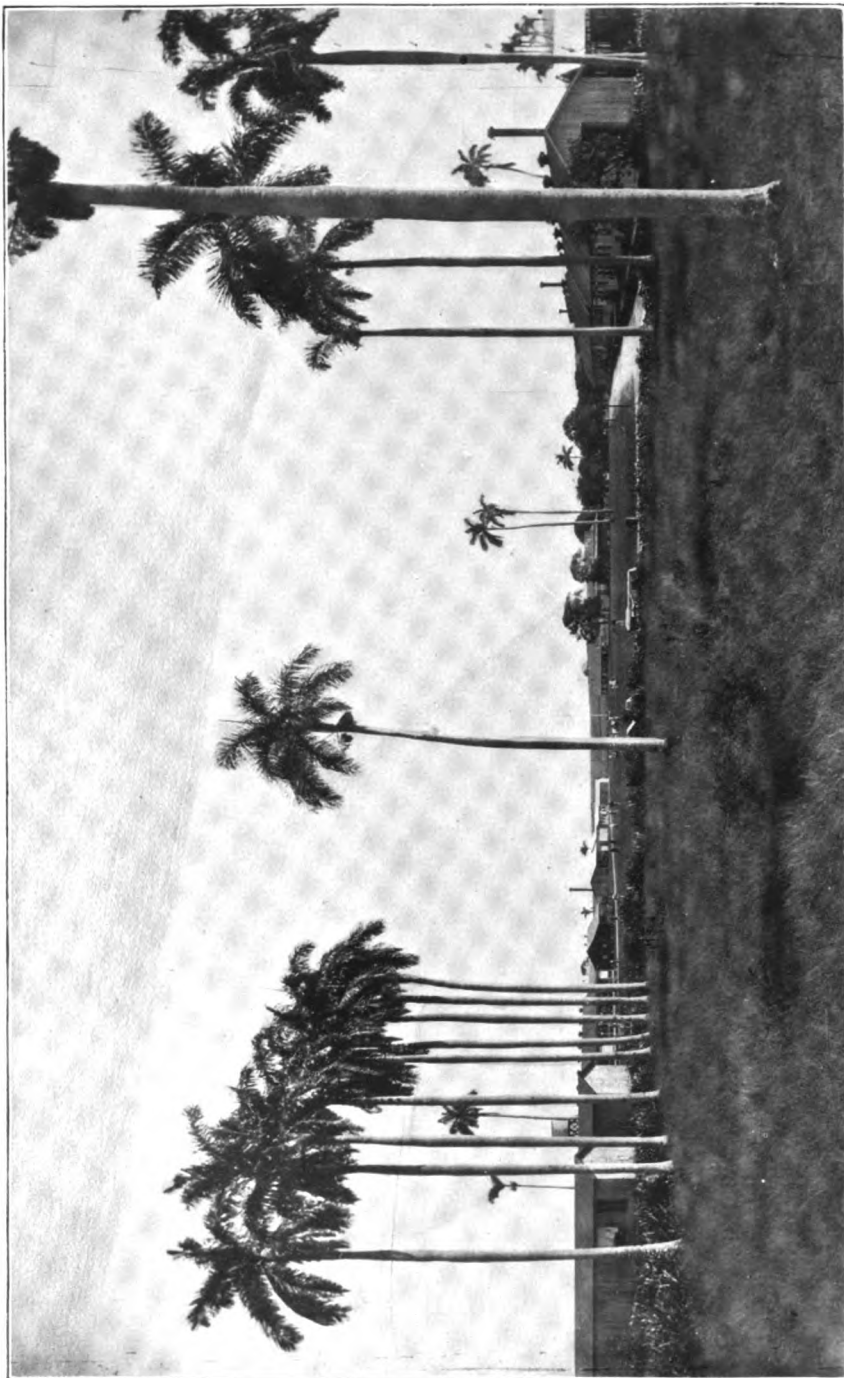
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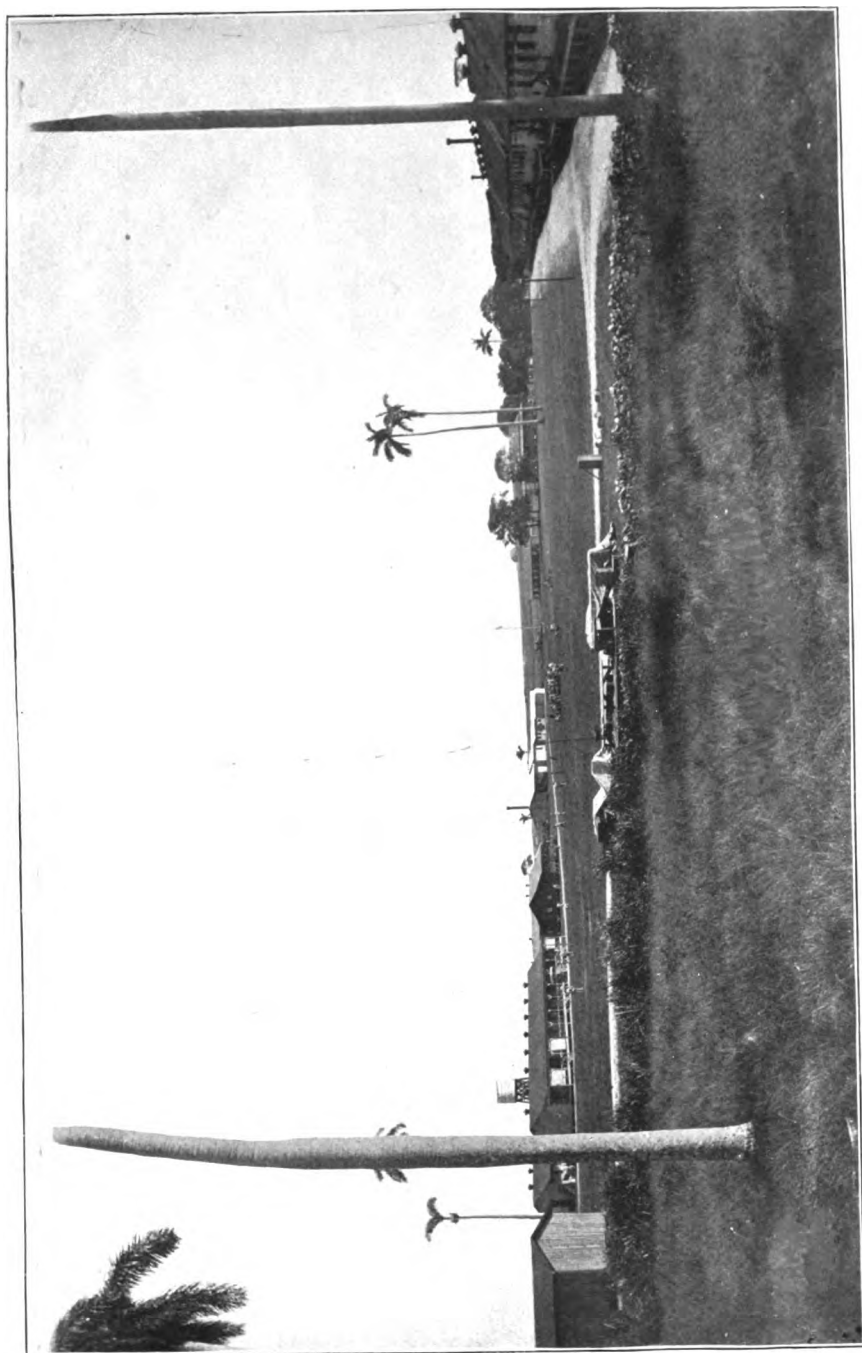
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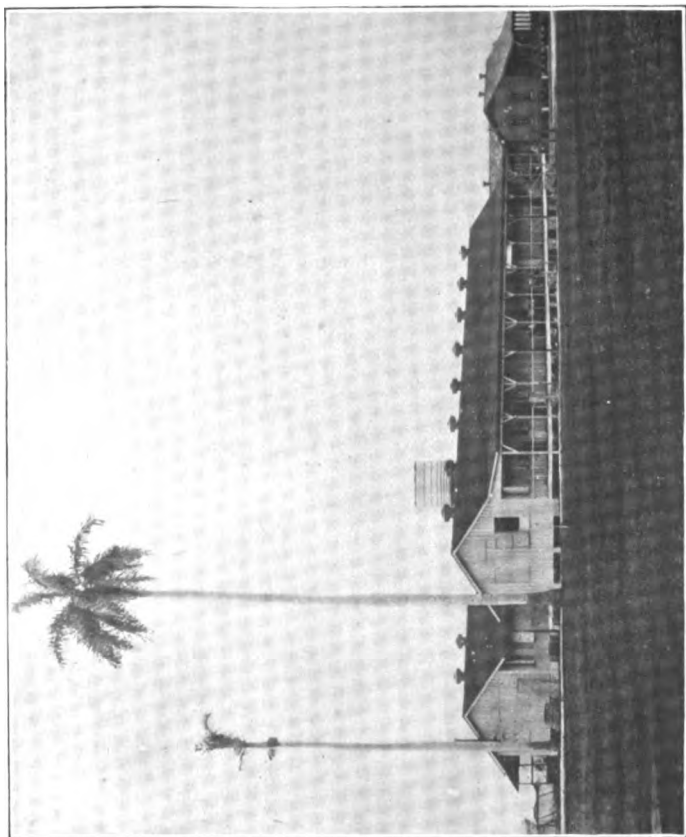
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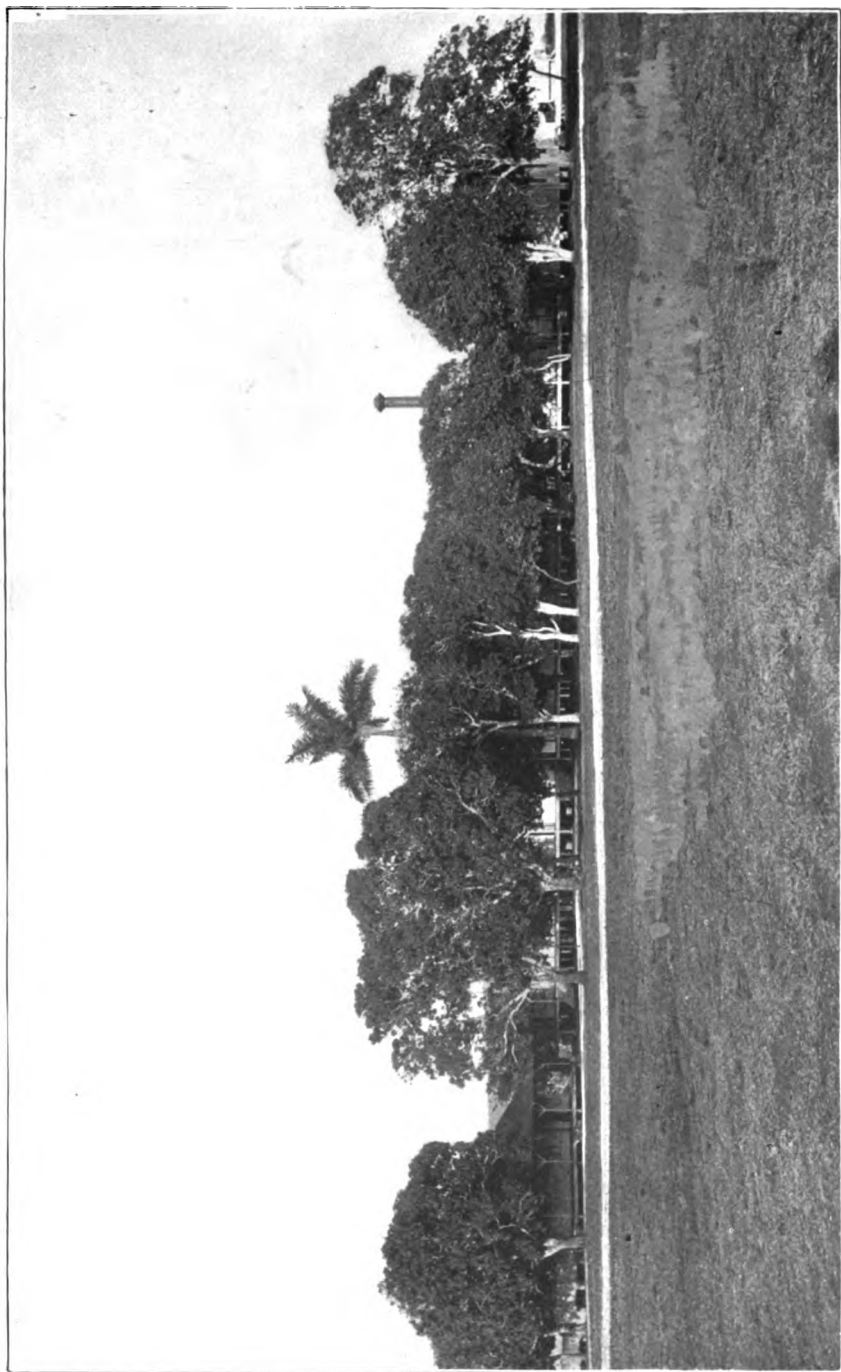
GUANAJAY BARRACKS, CUBA, MAJ. FRED A. SMITH, FIRST INFANTRY, COMMANDING.



GUANAJAY BARRACKS, CUBA.



GUANAJAY—COMMANDING OFFICER'S QUARTERS, OFFICERS' QUARTERS, OFFICERS' MESS HALL.



HOSPITAL, GUANAJAY BARRACKS. CUBA.

In view of this decision these four soldiers will have to be tried by a Cuban judge, and will probably be acquitted and turned loose, as happened in the case of Private York, unless they die from disease in Cuban jails. This is a most important matter, and a remedy should be found and applied at the earliest possible moment.

Private York was turned over to the civil authorities on the 14th of February, 1900. Over three months elapsed before the proceedings against him were terminated. The fiscal asked the court, before the "oral trial," as it is called, to impose a sentence of fourteen years eight months and one day confinement. The oral testimony can not be ascertained because there was no record kept of it. In conformity with the Spanish law, the request of the fiscal for the release of a prisoner must be complied with.

The custom-house cases, as they are called, might be cited, though in no way connected with the military, as a true evidence of detective links in the Cuban judiciary chain. Fifteen Cuban employees of the custom-house were arrested charged with an intention to defraud the government. The warrant of arrest against six of them was issued on the 25th of December, 1899; five more of them were arrested on the 29th of December; three more on the 30th of December, and one more on the 6th of January, 1900. June 25, 1900, was appointed a day for trial. This trial lasted two months, resulting in the release of all the accused, notwithstanding the fact that the evidence against them was most conclusive, the confession of one of the guilty parties being a part of it, and the evidence taken in connection therewith bearing out in every particular the aforesaid confession.

The health of troops depends in a great degree upon the purity of drinking water and the disposal of the excreta. In place of pit latrines, as generally used in camps, earth closets, and other systems, it has been ascertained that the plan recommended by the typhoid fever board in General Orders, 170, Adjutant-General's Office, 1899, is by far the safest and best method to pursue. The excreta is received in troughs of galvanized iron containing milk of lime, 1 part to 8, a small amount of crude petroleum being poured on top of this fluid in each trough to drive away flies. At Columbia Barracks the system is perfect, the contents of the troughs passing through a large sewer pipe to the sea, but when the location of the barracks of troops prevents such an arrangement, very satisfactory results can be obtained by the use of odorless excavators, the contents of which are discharged some distance from the post and disinfected at once by the milk of lime.

If vigilance is at all times exercised troops can be kept in the tropics without loss of health, vigor, or military efficiency, but we must never forget that the germs of yellow fever are ever present and are still a mystery to the medical profession. Apparently they lie dormant in many localities for several years, and then from inexplicable reasons recommence their destructive work.

This is what is called a yellow fever year in Cuba, and there is much more of it than I have ever noticed in a residence of over four years. Quemados and Marianao are pretty towns situated some 8 miles from Habana on a high elevated plateau overlooking the ocean. They are health resorts, and during the summer months are filled with people from Habana escaping from the heat and dangers of disease. Lying on the edge of the large post of Columbia Barracks, every effort was made and much money was spent to make their sanitary condition as

near perfect as possible. Last year, in July, a soldier died of yellow fever at Columbia Barracks, and six months afterwards another died at Guanajay Barracks, some 22 miles distant. The source of infection could not be traced. In August, 1899, there were in the Second Artillery in Fort Cabañas 1 officer and 22 men with yellow fever. Seven died. It was due to placing the soldiers in an old infected Spanish fort. Now the garrison is located in barracks built on outside, and is healthy.

In May of this year yellow fever appeared on "General Lee street," Quemados, where most of the Americans lived, and spread until finally up to June 30, the end of the year to which this report refers, there were 32 cases and 8 deaths, as follows:

	Cases.	Deaths.
In the Army at Columbia Barracks.....	3	0
In Quemados.....	8	2
Civilian employees of Army.....	7	2
Other civilians.....	14	4
Total.....	32	8

Since then there have been—

	Cases.	Deaths.
In the Army at Columbia Barracks.....	7	1
Civilians at Columbia Barracks.....	6	1
Civilians in Quemados.....	5	2
Total.....	18	4

Making in all 50 cases and 12 deaths.

Three of the members of my staff had it, viz., Maj. Frank H. Edmunds, First Infantry, inspector-general of the department; Maj. J. R. Kean, chief surgeon of the department, and Capt. Charles B. Hepburn, chief signal officer of the department. Major Edmunds died, and the other two recovered. Major Edmunds and Captain Hepburn lived on the infected street, and Surgeon Kean frequently visited it. Prompt and successful measures were taken to suppress the disease; all saloons, houses of prostitution, and disreputable places generally were closed, and all nonimmunes were ordered into tents pitched a little distance from the town. Houses infected by fever and all their contents were thoroughly disinfected, and no soldiers were allowed to enter the town; but no one knows how, where, or when fresh fever-cases may occur; though it is not probable it will again make its appearance this year.

Satisfactory results have been obtained in my command from the establishment and maintenance of canteens. Not all American soldiers have perfect habits. Conditions have to be met as they actually exist. There is no question but that the canteen affords an outlet to those soldiers who are more or less inclined to the drinking habit, and also keeps them in camp, when otherwise they would be running out to the nearest grogshop where only the worst liquors are served. My former inspector-general, the late Major Edmunds, of the First Infantry, recently accompanied me on an inspection of Batteries O, M, G,

N and H, Second Artillery, which are stationed upon the outskirts of Habana. In the closing sentence of his official report of that inspection he says: "Although it was just after pay day, there was not a man in the entire command inspected who showed any effects of the use of intoxicating liquor," and adds that the officers of these commands "united in saying that since the establishment of the canteen at these batteries there have been less sickness, fewer trials, and better discipline, and no case of alcoholism, the latter of which often happened under previous conditions."

The batteries were originally under the command of General Ludlow, during which time canteens were prohibited. After they came under my command canteens were allowed. This, therefore, is a practical illustration of the same troops in the same stations without a canteen and with a canteen.

There are five district jails in Habana Province and four in the province of Pinar del Río. It is presumed General Wilson's annual report will embrace the jails in Matanzas and Santa Clara. These jails have been inspected regularly and were at first in a very unsatisfactory condition. Prisoners were found in confinement who had been held for many months for trivial offenses without trial, and in some cases they did not know what they were charged with nor could the jail officials tell. These prisoners have all been released and the jails put in a satisfactory condition at an expense of \$20,344.34. Salaries due jail officials for seven and eight months previous were all paid up to the first of July, since which time the department commander has had nothing to do with them.

All public funds have been conscientiously handled during the past fiscal year in the Department of the Province of Habana and Pinar del Río and later in the Department of Habana and Pinar del Río; the amount allotted, received, and disbursed during that time being \$267,395.30, the first by Capt. H. J. Slocum, Seventh Cavalry, disbursing officer of the department, until he was obliged to take a sick leave, and since the latter part of June his duties have been discharged by Maj. George S. Cartwright, chief quartermaster of the department.

There is one company of rural guards in the provinces of Habana and Pinar del Río, consisting of 3 officers, 16 noncommissioned officers, and 90 privates. These guards are stationed about at various locations within the limits of the department to preserve law, order, and peace in the rural districts. They are required to carry out instructions from the different alcaldes and to assist the rural police when called upon to suppress disorders. The guards are nearly all ex-Cuban soldiers, well acquainted with the country and people, and carefully selected from a large number of applicants, and have been successful in recovering stolen property and breaking up cattle and horse stealing. They are armed with the .44-caliber Remington carbine. These arms are kept well cleaned and oiled, and each trooper carries 12 cartridges and a machete; clothing and equipments in good condition, and they are fairly well mounted on native ponies. For this service during the last fiscal year \$53,474.99 has been paid.

Attention is called to the report of First Lieut. H. F. Jackson, Second Artillery, acting engineer officer. Extensive road building has been carried on in various sections of the department. Columbia Barracks has been united by a fine avenue to the Almendares River, over which a pontoon bridge has been thrown, and from which roads lead via

Vedado, where connection is made with the posts of the Second Artillery and on to Habana, and by the Colon Cemetery also to Habana, thus affording means to rapidly throw troops, if necessary, into Habana by two routes, in addition to the existing calzada from Marianao and Quemados to that city.

The business of the signal department has been satisfactorily carried on. The necessary telegraph and telephone lines have been run in the department and kept in good working order. The department headquarters has been placed by a telephone system in connection with 18 offices, including the residences of officers in and around Quemados and 54 in and around Habana, as well as telegraph communication with all the world.

Accompanying this report are the reports of the staff officers at the head of the various departments and commanding officers of the different posts. I take pleasure in calling your attention to their able and comprehensive statements, and to add my testimony that their duties have been satisfactorily and conscientiously discharged.

These reports are:

No. 1. Maj. R. E. L. Michie, assistant adjutant-general, U. S. Volunteers, adjutant-general.

No. 2. Maj. G. S. Grimes, Second Artillery, acting inspector-general.

No. 3. Maj. G. M. Dunn, judge-advocate, U. S. Volunteers, judge-advocate.

No. 4. Maj. G. S. Cartwright, quartermaster, U. S. Volunteers, chief quartermaster.

No. 5. Maj. J. R. Kean, surgeon, U. S. Volunteers, chief surgeon.

No. 6. Maj. J. W. Dawes, additional paymaster, U. S. Volunteers, chief paymaster.

No. 7. Capt. H. S. Whipple, Third Cavalry, acting chief commissary.

No. 8. First Lieut. H. F. Jackson, Second Artillery, engineer officer.

No. 9. Maj. G. S. Cartwright, quartermaster, U. S. Volunteers, disbursing officer.

No. 10. Second Lieut. C. R. Day, Seventh Cavalry, aid, acting signal officer.

No. 11. Capt. Frederick Perkins, Eighth Infantry, acting inspector-general.

No. 12. Second Lieut. C. R. Day, Seventh Cavalry, aid, acting superintendent of jails.

No. 13. Second Lieut. C. R. Day, Seventh Cavalry, aid, acting superintendent rural guards.

No. 14. Col. T. A. Baldwin, Seventh Cavalry, commanding Columbia Barracks.

No. 15. Col. A. A. Harbach, First Infantry, commanding Pinar del Río Barracks.

No. 16. Col. W. L. Haskin, Second Artillery, commanding artillery defenses of Habana.

No. 17. Maj. F. A. Smith, First Infantry, commanding Guanajay Barracks.

I have the honor also to add a copy of Circular Order No. 1, Headquarters Department of Western Cuba, dated August 10, 1900.

I have the honor to be, very respectfully, your obedient servant,

FITZHUGH LEE,
Brigadier-General, Commanding.

CIRCULAR LETTER, }
No. 1. }

HEADQUARTERS DEPARTMENT OF WESTERN CUBA,
Quemados, Cuba, August 10, 1900.

The department commander announces for the benefit of all concerned that he does not propose to interfere with the civil authorities within the geographical limits of his command, except to maintain public order and protect the lives and property of all persons residing therein.

Harmony and mutual support should prevail between the civil and military officials. The former are charged with the conduct of civil affairs and all communications from them relating to civil matters must be made to the civil heads of the department in Habana to which they respectively refer and not to the military commander of the Department of Western Cuba.

The municipal police of the various towns are directly under the control of the local authorities, and will not in any way be interfered with except in cases where they are unable to preserve the peace.

The rural guards are under the orders of the military commander of the department, to be moved when necessary from place to place. They are also to be employed when essential to reinforce the municipal police, and in turn will be augmented by American soldiers only when all other methods have been exhausted.

The department commander is not charged with the sanitation of towns except those located at or in the vicinity of the station of United States troops. All other towns must regulate their own sanitary regulations and provide for the health of their own citizens. Where unable to do so, the local authorities should appeal for assistance to the head of the department in Habana.

FITZHUGH LEE,
Brigadier-General, Commanding.

REPORT OF COL. SAMUEL M. WHITSIDE, COMMANDING THE DEPARTMENT OF SANTIAGO AND PUERTO PRINCIPE.

HEADQUARTERS DEPARTMENT OF SANTIAGO
AND PUERTO PRINCIPE,
Santiago de Cuba, June 30, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY.

(Through Headquarters Division of Cuba.)

SIR: I have the honor to submit the following report of this department for the year ending June 30, 1900. In obedience to General Orders No. 1, Adjutant-General's Office, January 3, 1900, I assumed command of the Department of Santiago and Puerto Principe January 22, relieving Maj. Gen. Leonard Wood, U. S. Volunteers, appointed military governor of the island of Cuba.

There has been nothing in the condition of affairs in this department requiring special activity of the troops, and their movements have been confined to the usual practice marches, field exercises, target practice, and a few minor changes of station.

INSPECTION OF POSTS.

The provisions of paragraph 193, Army Regulations, have been carried out by a personal inspection of all the posts in the department and such personal examination and observation as assure me that the troops are efficient and well instructed; that the supplies are well distributed; that the transportation service is satisfactory; that public property is properly cared for, and that due economy is exercised in all public expenditures. The travel on these inspections has been by the U. S. army transport *Wright* by sea, and by ambulance, mounted

travel, or rail in the interior. They were made between February and June. The troops are generally well housed. Barracks and officers' quarters have been built at Morro Castle. The Eighth Cavalry are still in camp near Puerto Principe and have been for a year, but plans for a six-company post have been approved by the division commander and work is expected to begin July 1. At the other posts the troops occupy old Spanish barracks, in some cases refitted and repaired since the American occupation. At posts where mounted troops are stationed good shed stables have been provided, generally with thatched roofs. The water supply depends mainly upon cisterns and wells, though at Morro Castle water is pumped from the San Juan River. At the Eighth Cavalry camp it is pumped from a creek some distance away, and at Baracoa it is piped in from the mountains several miles distant. The health of the troops has been good. Since December there have been no epidemic diseases in the department. One or two sporadic cases of yellow fever occurred at Nuevitas in June. The troops have been regularly paid. Post exchanges are in operation at all posts and have been successfully managed. The men were never so well fed and clothed as they are at this time. They are provided bathing facilities, reading rooms, exchanges, gymnasiums, and outdoor exercises such as few of the men enjoyed before entering the service, but yet they desert. The number of desertions in the department during this year has been:

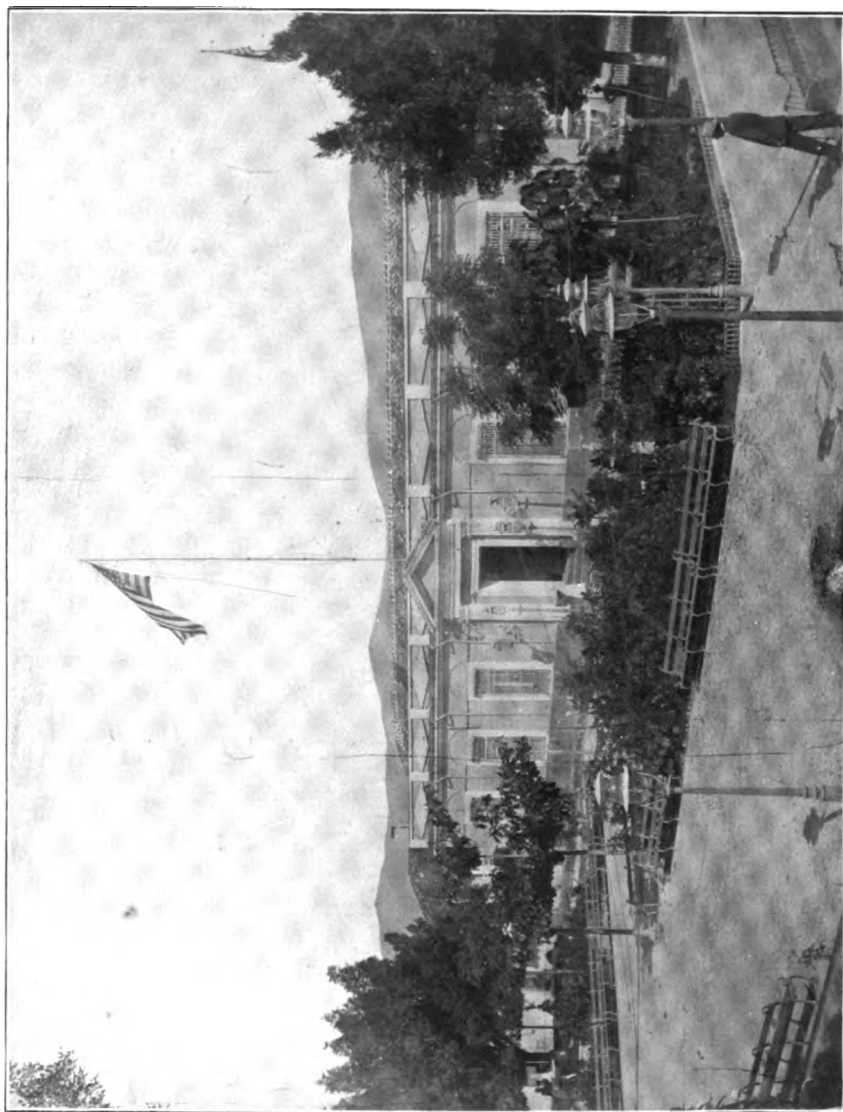
Eighth Cavalry	27
Tenth Cavalry	4
Fifth Infantry	34
Hospital Corps	5
Signal Corps	0
Total	70

The fault is not in the service but must be looked for on the outside. Young men are entering the service who do not like the confinement of military life, become homesick, and desert. Not much more in the way of food, clothing, amusements, and liberty can be granted them to make military life more attractive, and desertion will only cease when the certainty of arrest and adequate punishment will cause men to continue in service until discharged rather than suffer the disgrace and punishment which should be sure to follow desertion.

I desire to call attention to the necessity of building temporary quarters at an early date for the accommodation of officers stationed at San Luis. No suitable buildings can be rented in the town.

ADMINISTRATION.

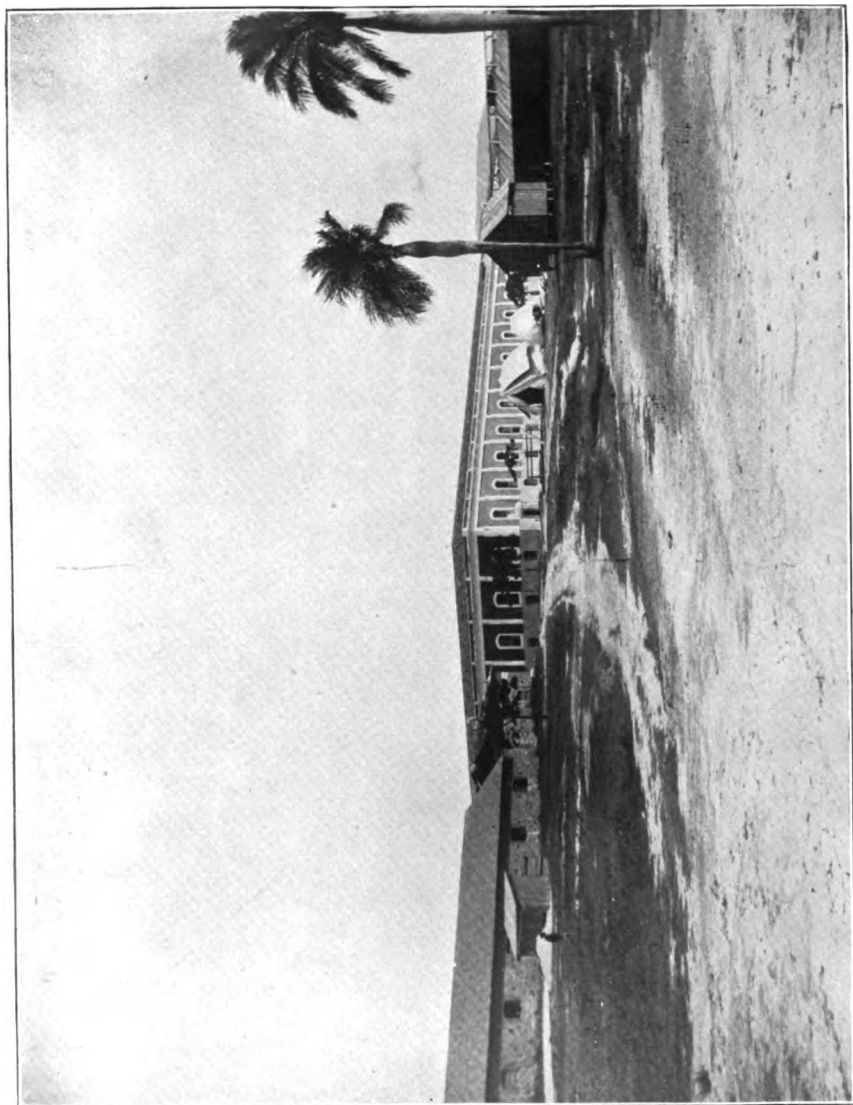
The last half of paragraph 767, Army Regulations, is, in my opinion, much overlooked, much matter going direct through purely staff channels that is there forbidden. This operates to the exclusion of much real authority over staff departments by those in command of troops. Line officers in command have few spheres of action that can not be curtailed by staff officers acting apparently independently and exercising really the functions of command which are forbidden them by regulations. Supplies obtained for departments are moved from place to place without the knowledge of the department commander. Orders given to department chiefs regarding supplies or property have to be referred to some higher staff officer, shorn by



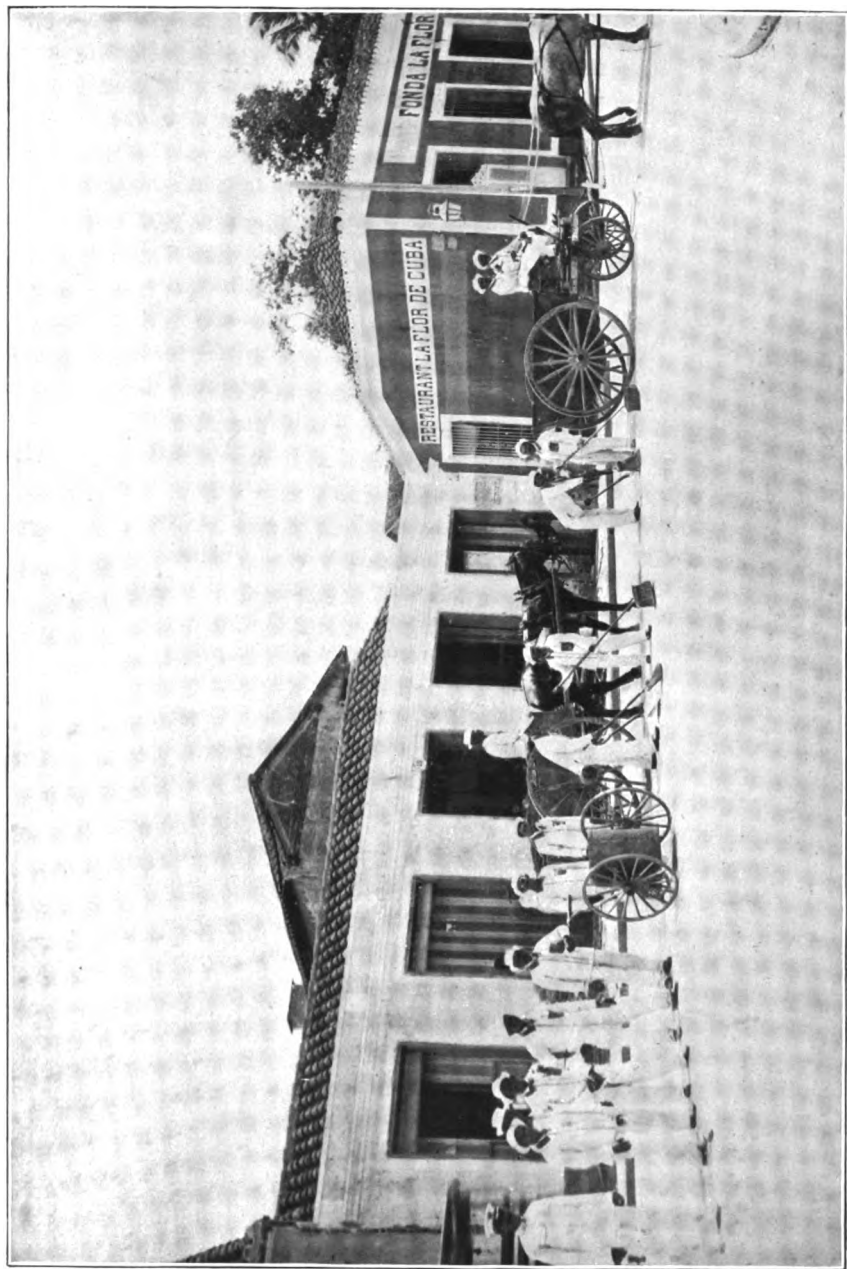
HEADQUARTERS DEPARTMENT OF SANTIAGO AND PUERTO PRINCIPLE. PALACE WHERE AMERICAN FLAG WAS FIRST RAISED.



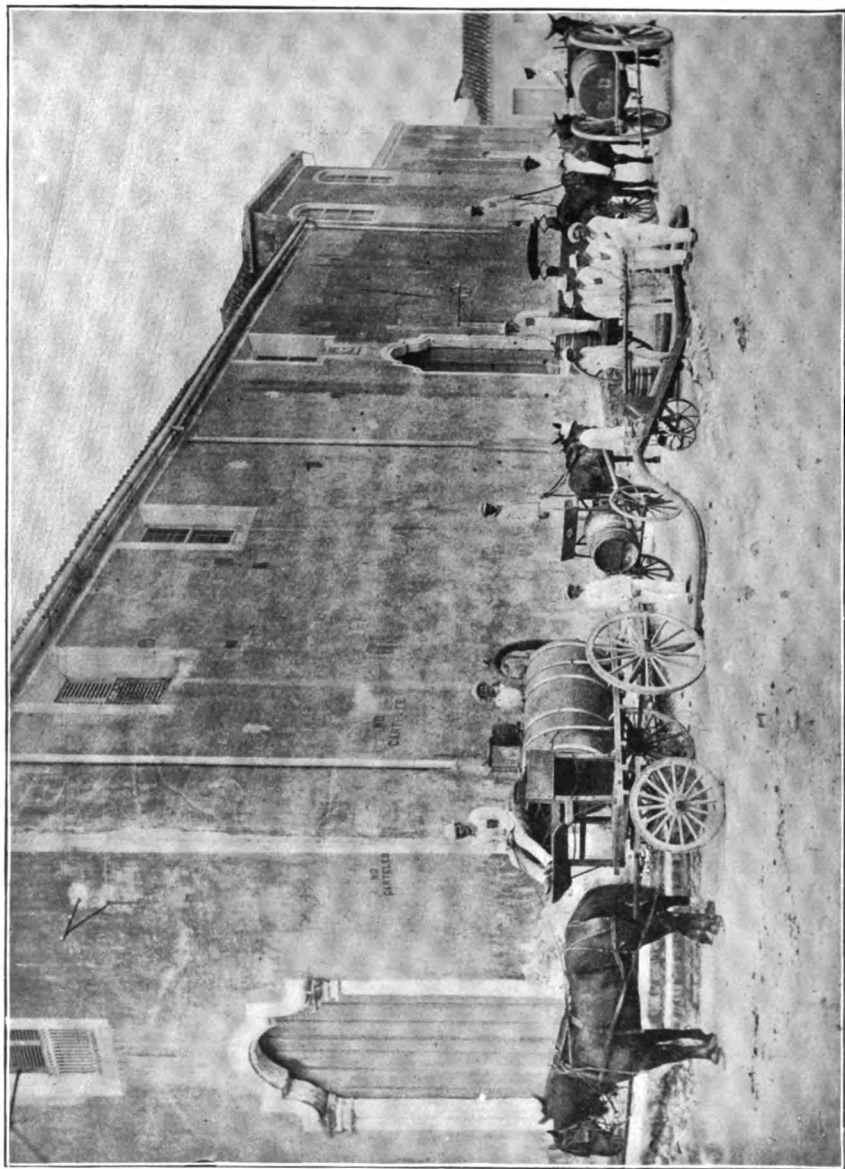
THE SURRENDER TREE, SANTIAGO DE CUBA.



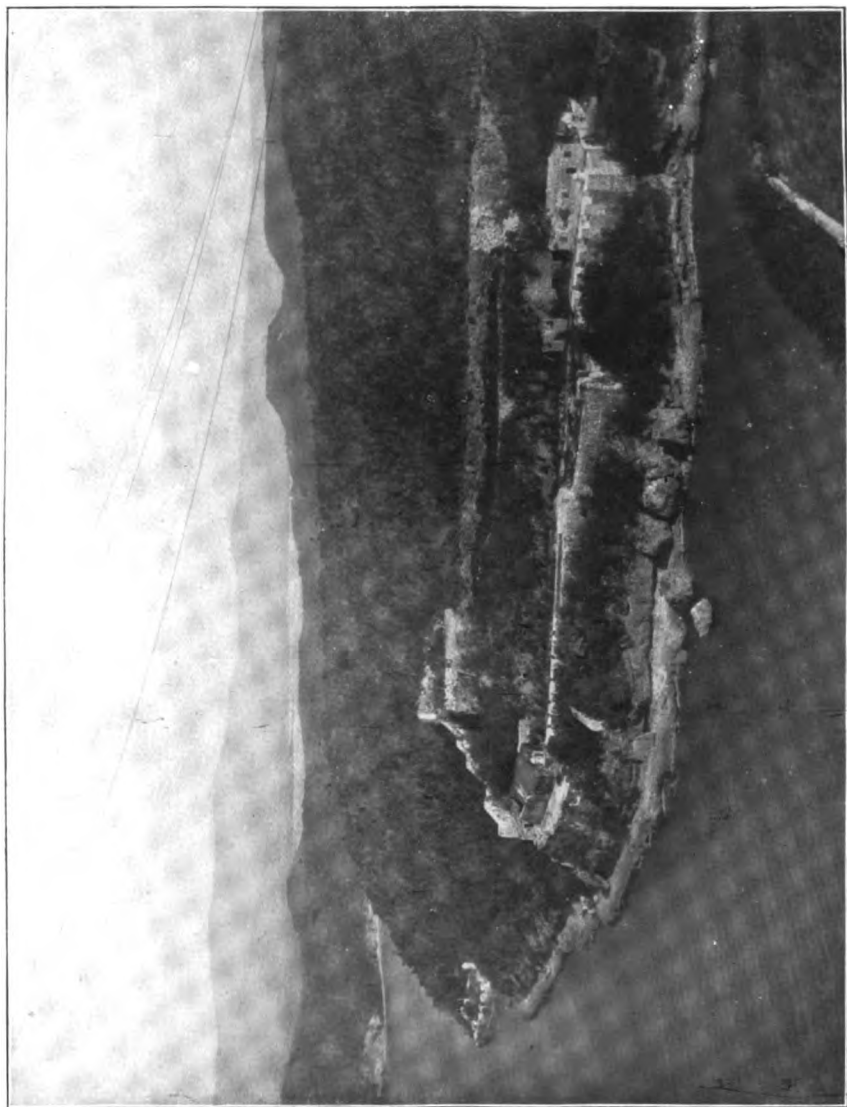
BARRACKS, SANTIAGO DE CUBA.



SANITARY DEPARTMENT, SANTIAGO DE CUBA.



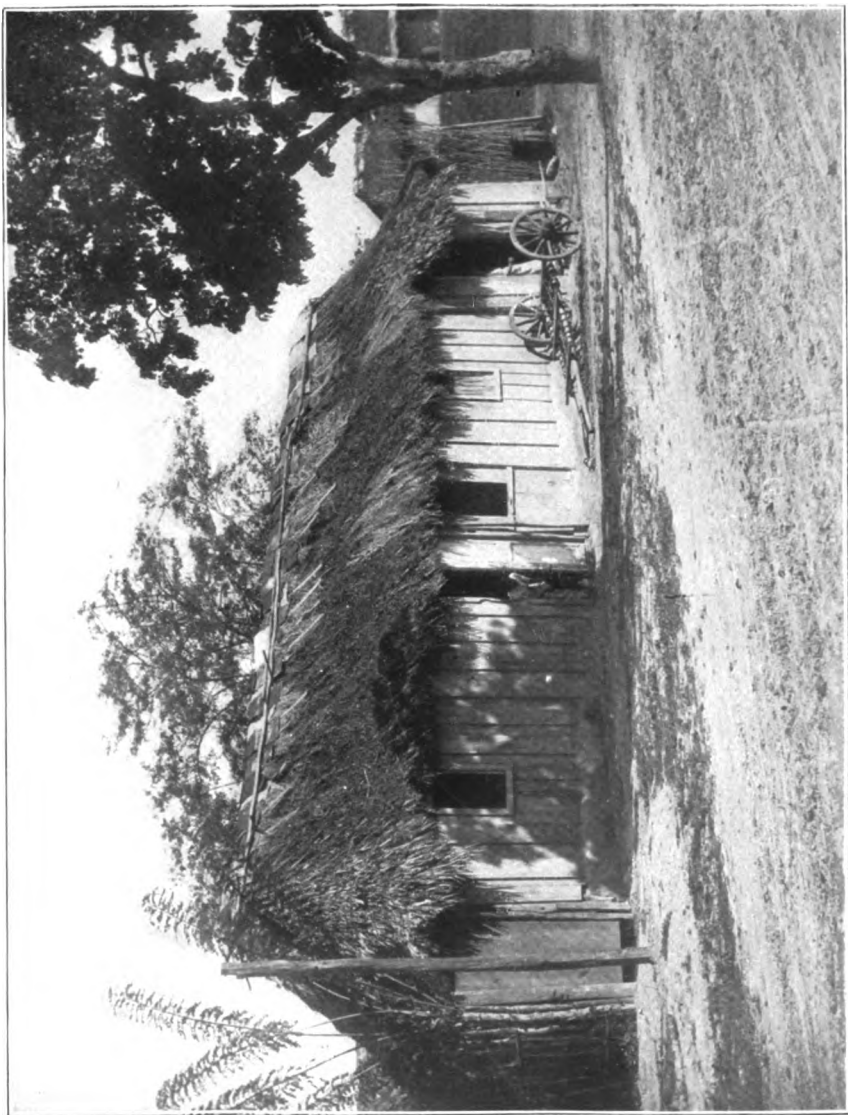
SANITARY DEPARTMENT, SANTIAGO DE CUBA.



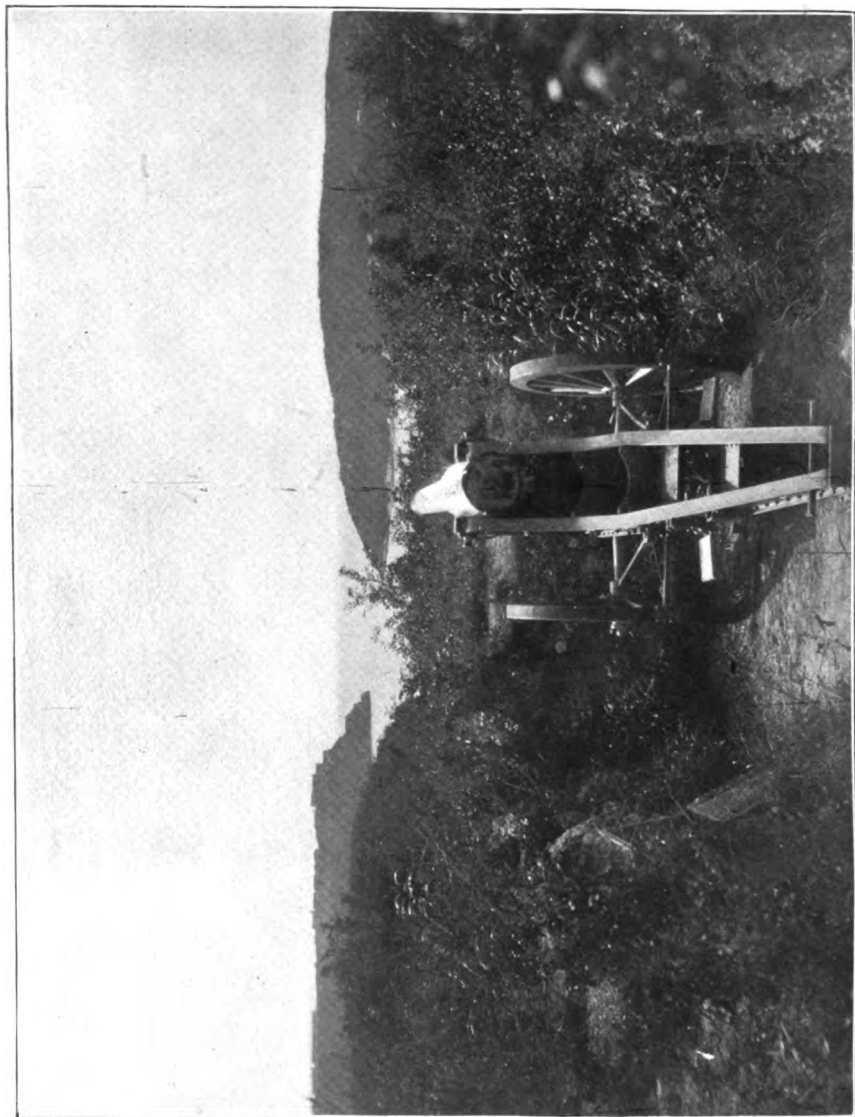
LA ESTRELLA BATTERY, SANTIAGO DE CUBA.



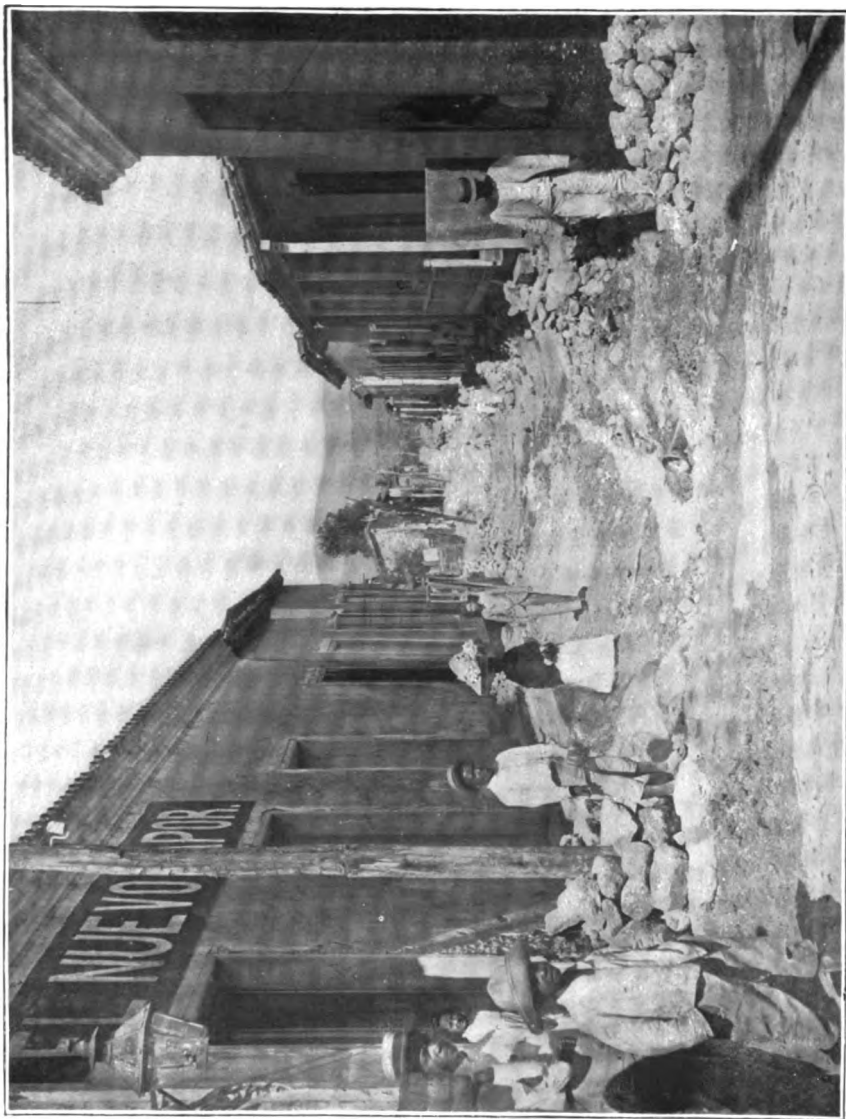
SUBURBS OF SANTIAGO DE CUBA.



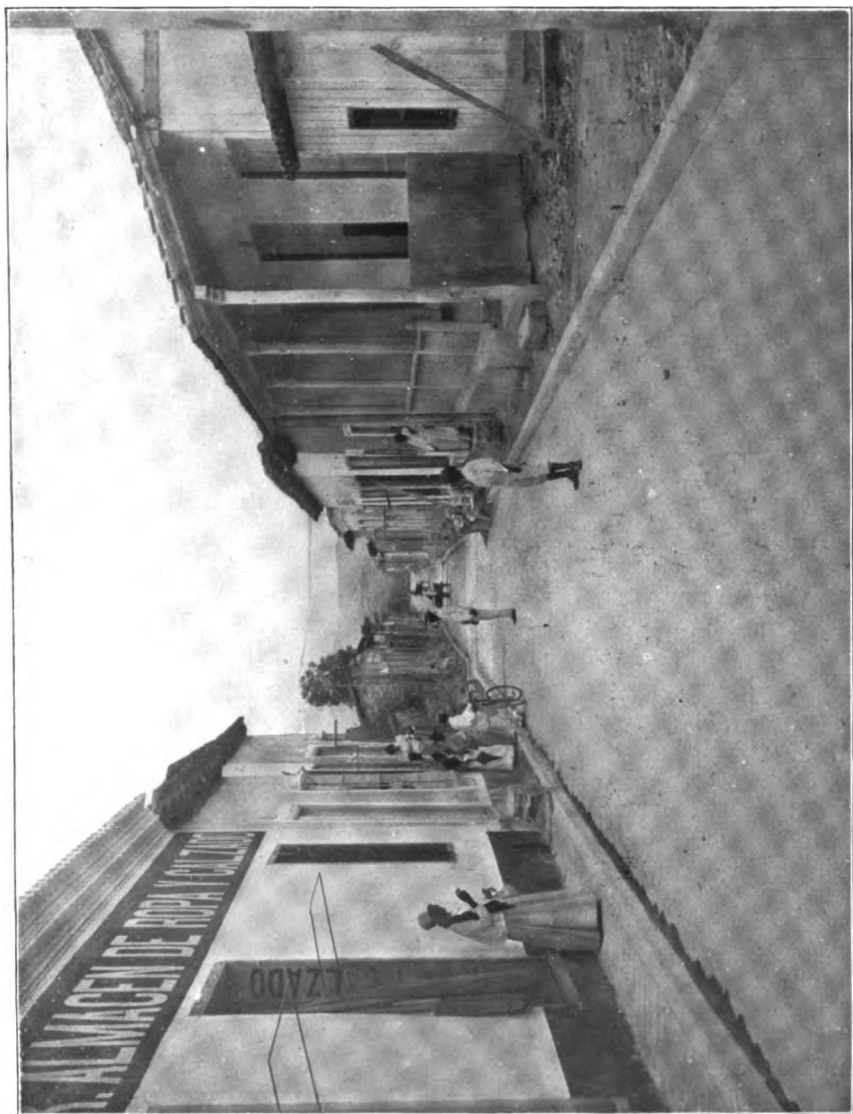
TYPICAL CUBAN CABIN.



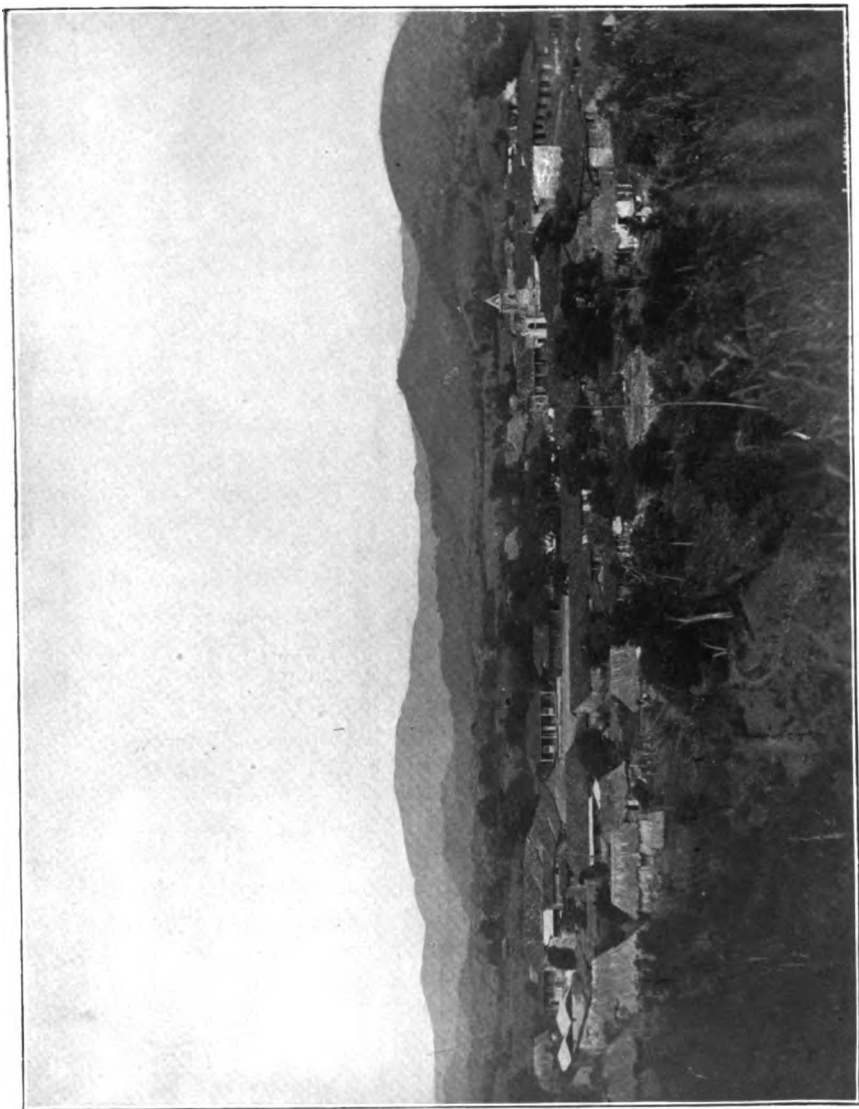
SPANISH GUN AT PUNTA GORDA, SANTIAGO DE CUBA. MORRO CASTLE IN THE DISTANCE.



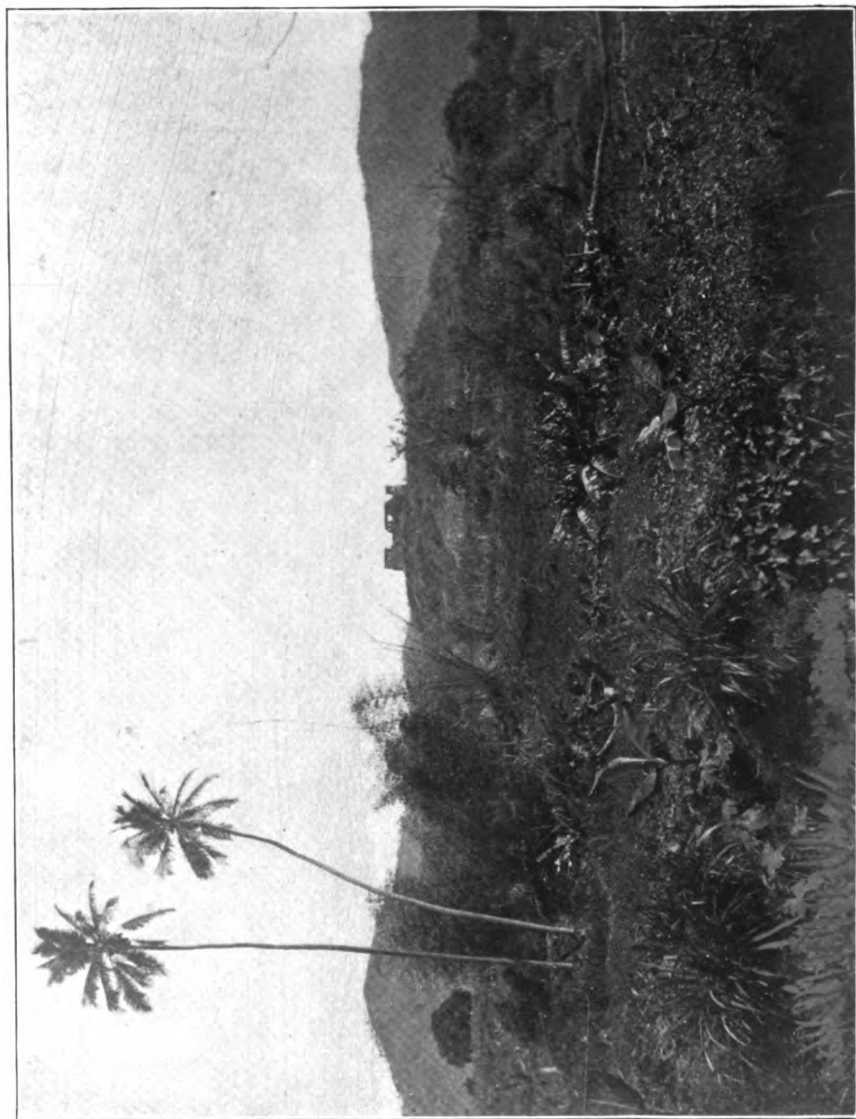
SAN FELIX STREET, SANTIAGO DE CUBA, 1899.



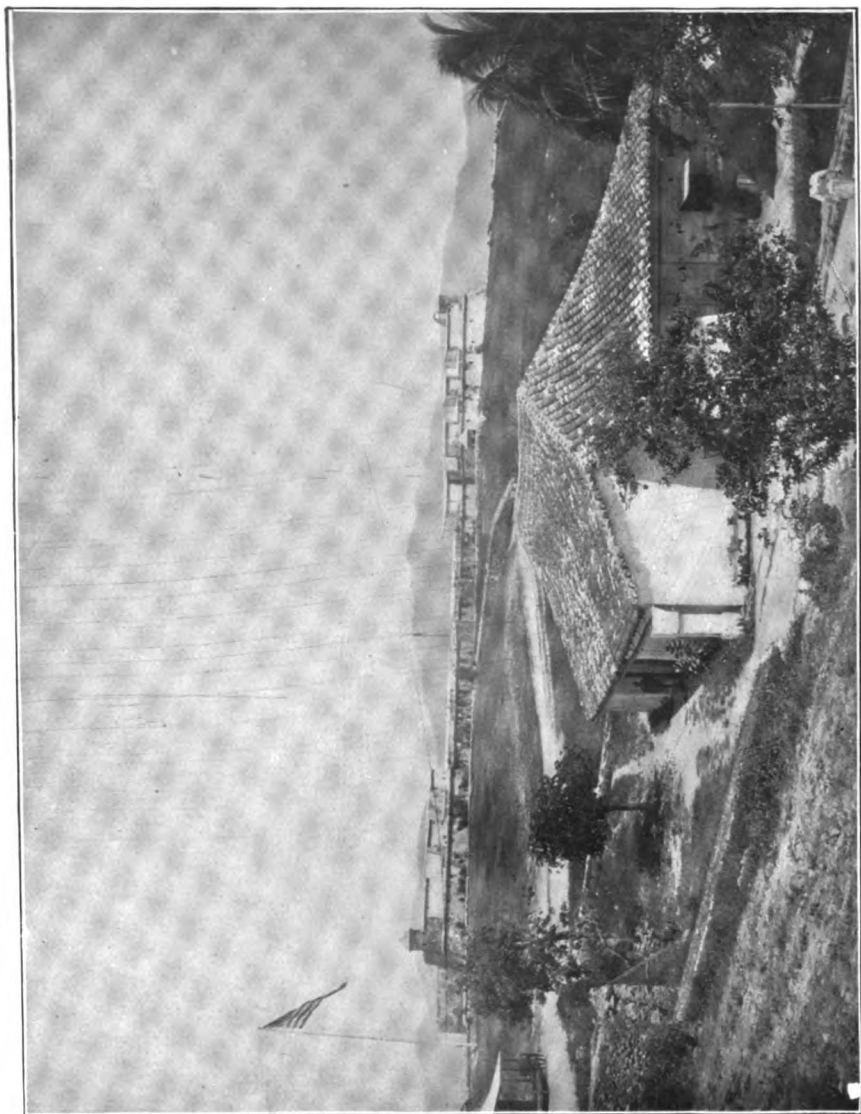
SAN FELIX STREET, SANTIAGO DE CUBA, 1900.



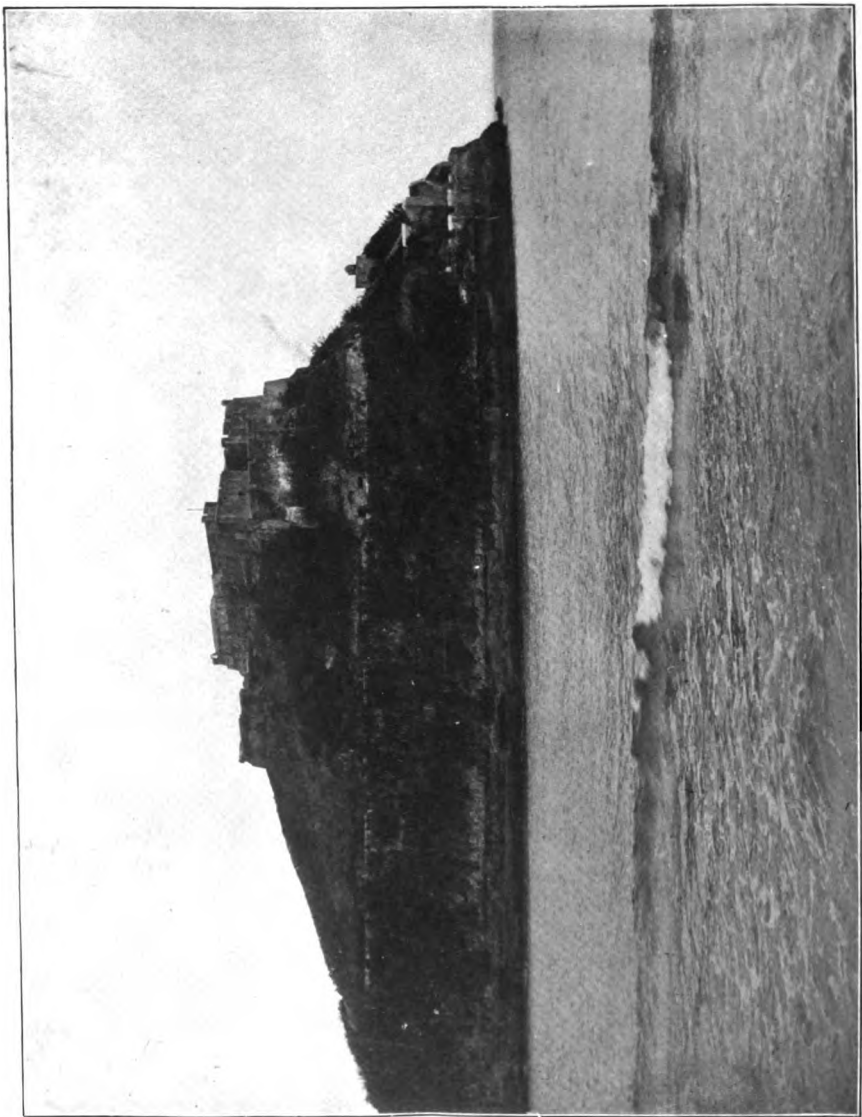
EL CANEY, CUBA.



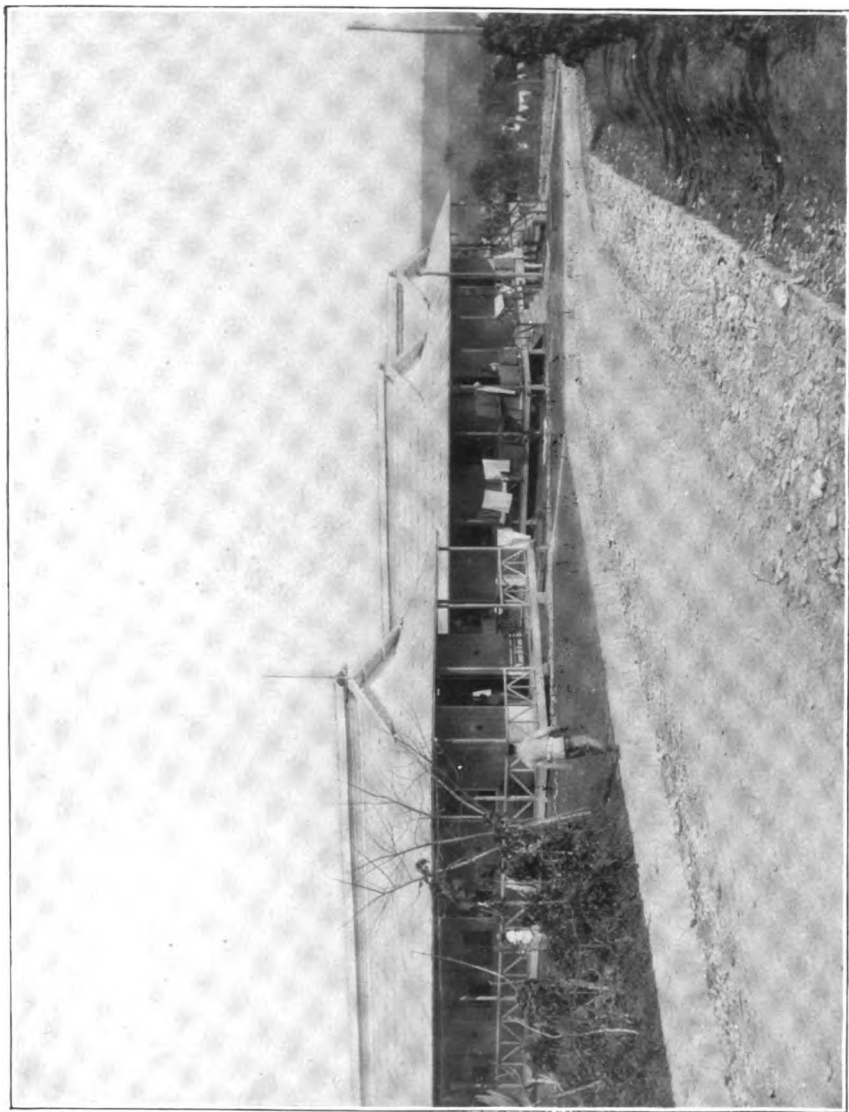
RUINS OF BLOCKHOUSE AT EL CANEY, CUBA, ASSAULTED JULY 1, 1898.



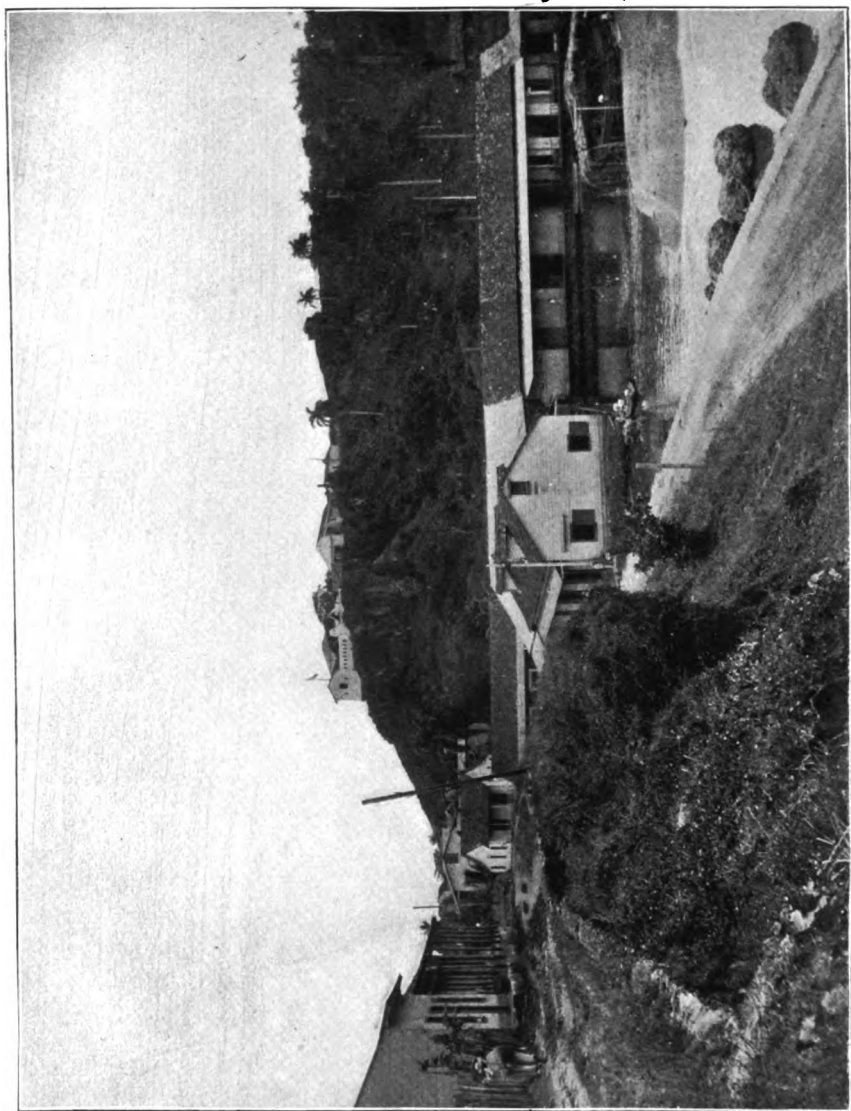
MORRO CASTLE, SANTIAGO DE CUBA, FROM FIFTH INFANTRY BARRACKS.



MORRO CASTLE, SANTIAGO DE CUBA.



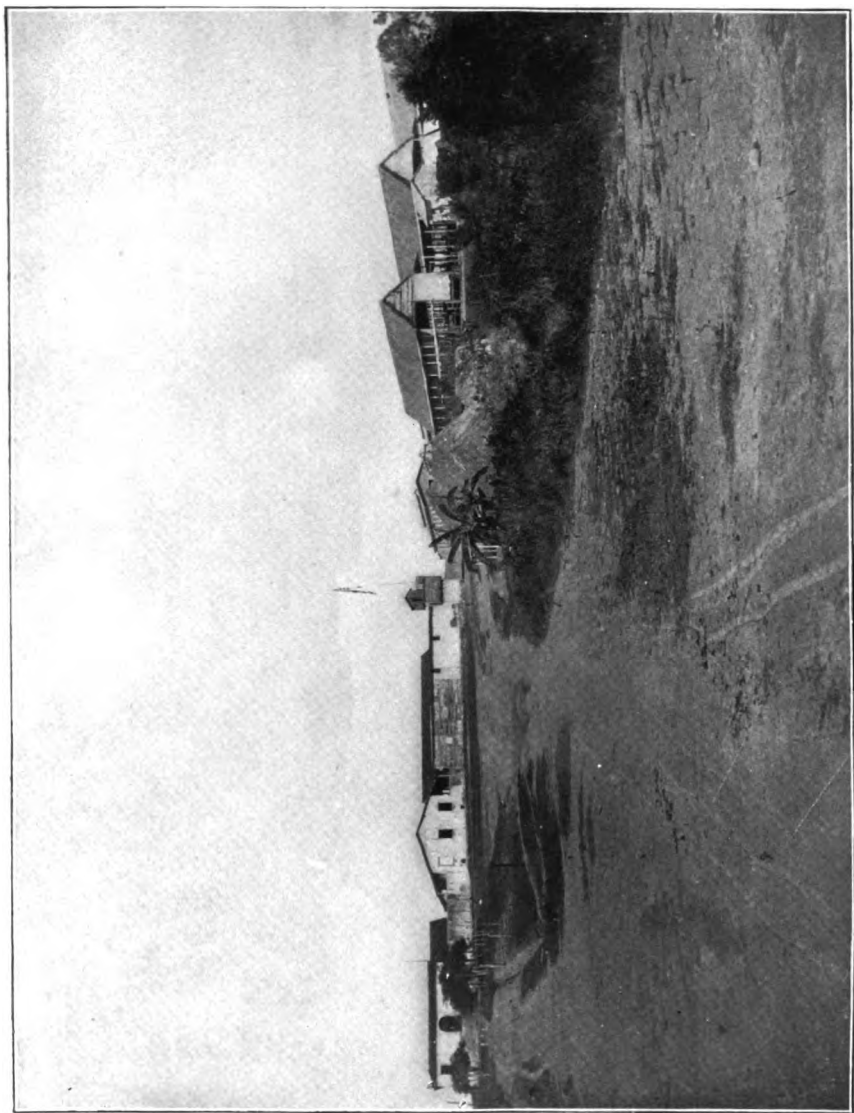
FIFTH INFANTRY BARRACKS, SAN LUIS, CUBA.



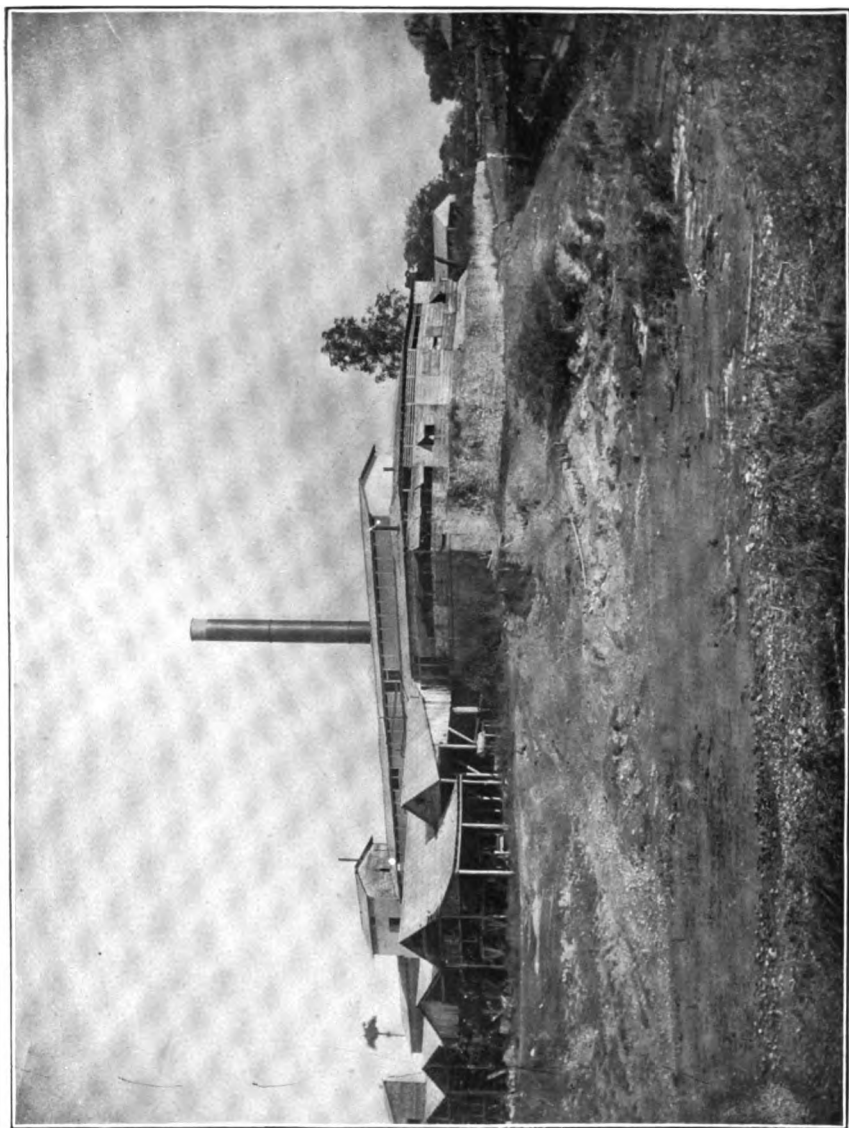
BARACOA BARRACKS, CUBA.



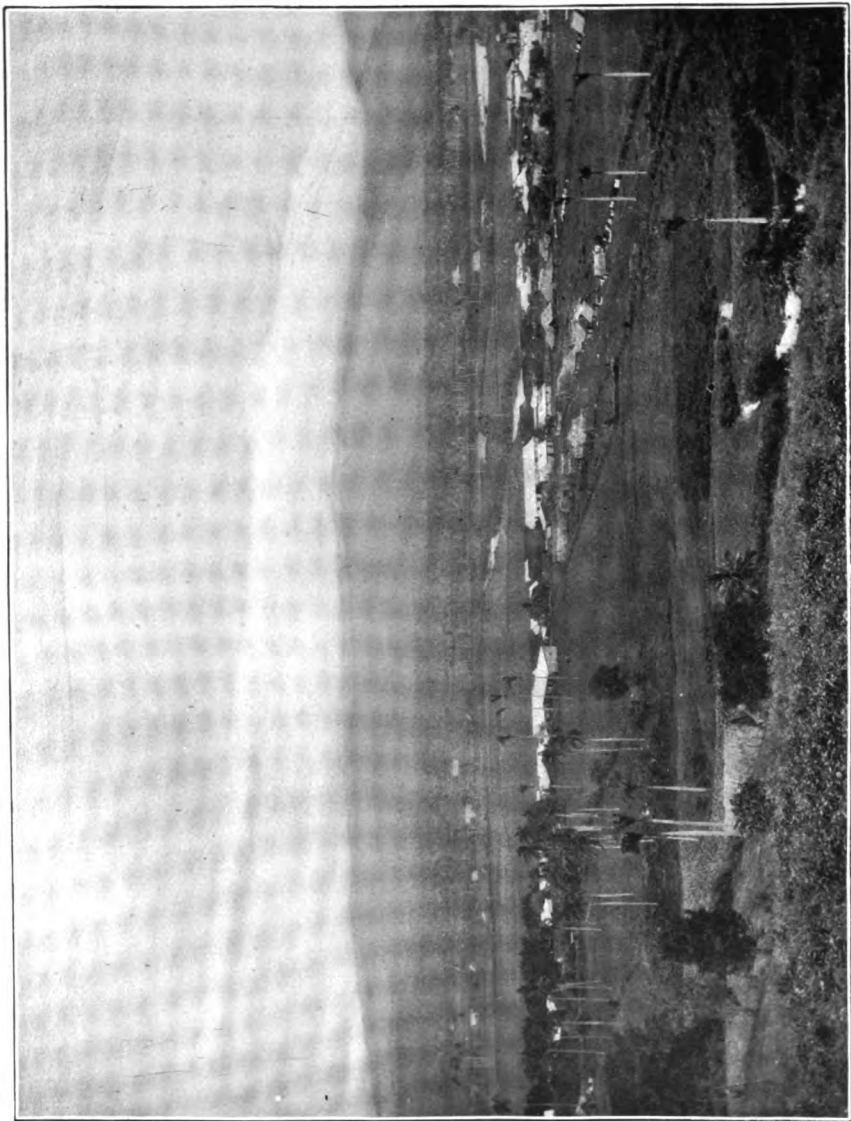
SUBURBS OF "SOLEDAD" SUGAR ESTATE, GUANTANAMO, CUBA.



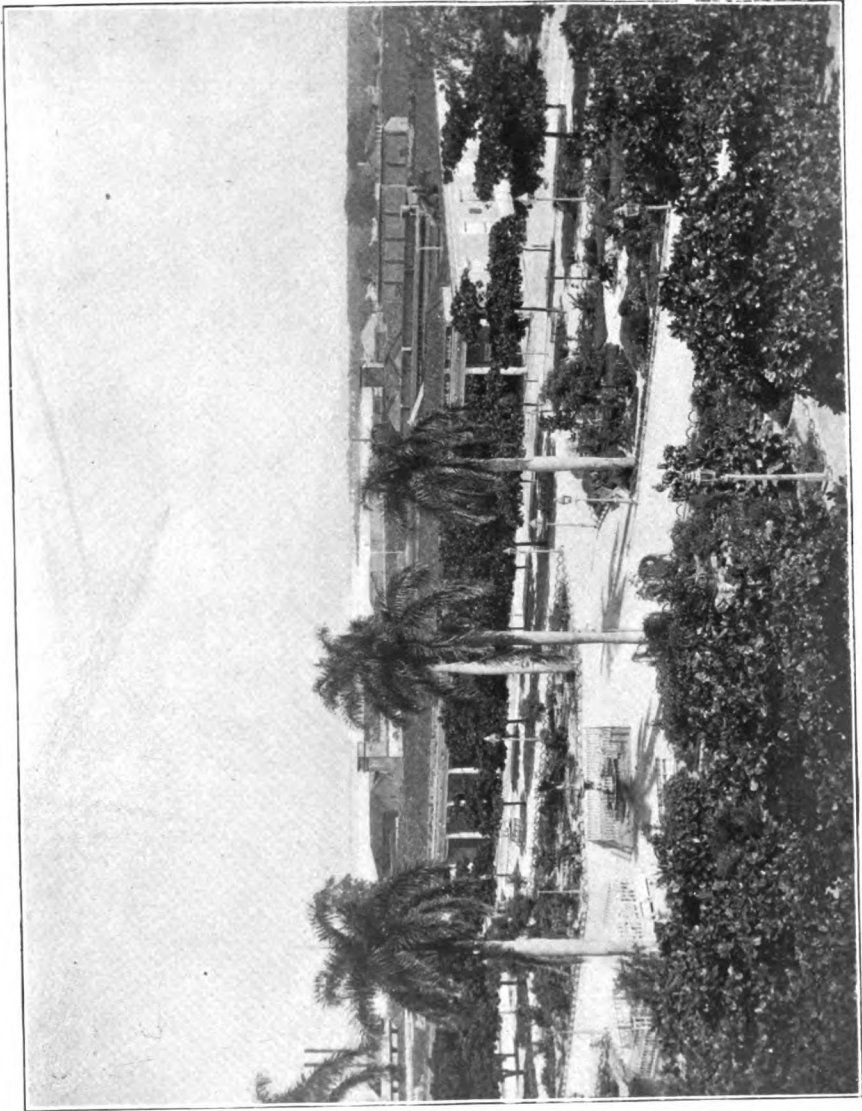
FIFTH INFANTRY BARRACKS AT GUANTANAMO, CUBA.



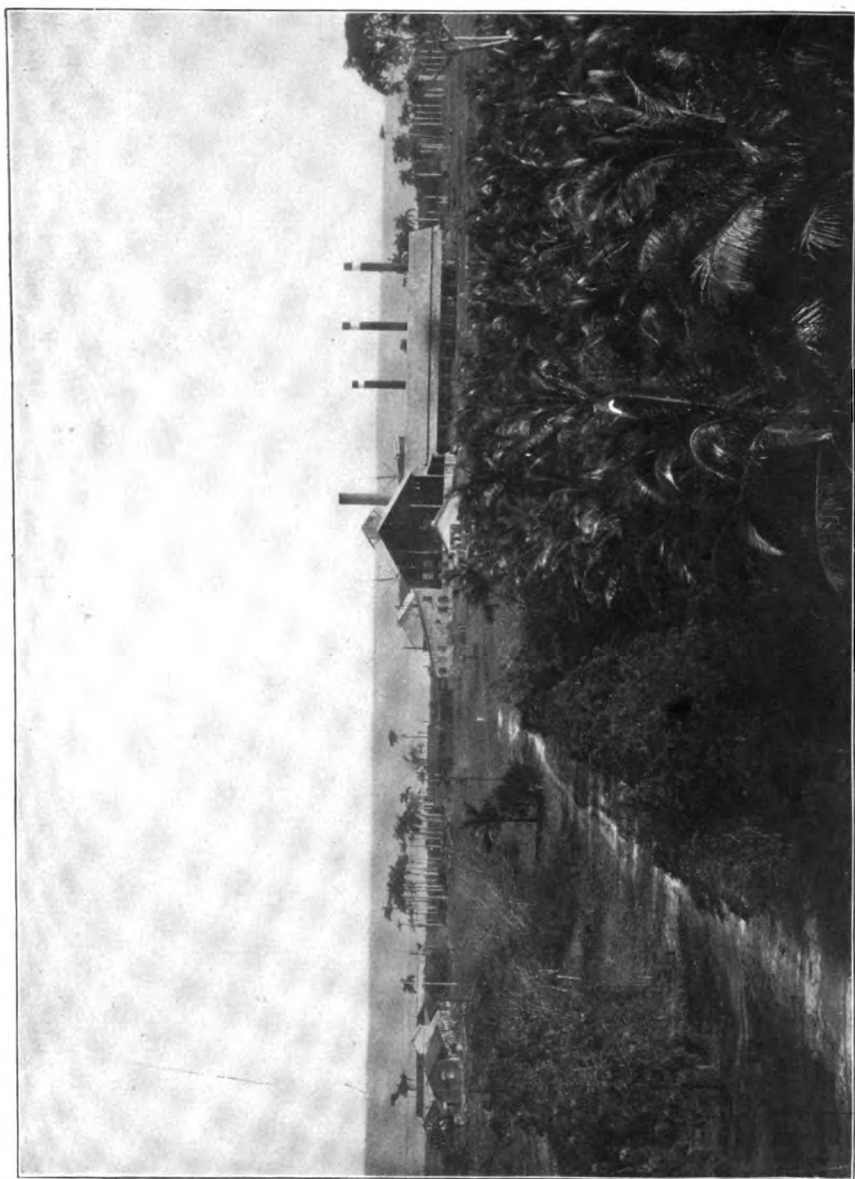
SUGAR ESTATE, "CONFLUENTE," GUANTANAMO, CUBA.



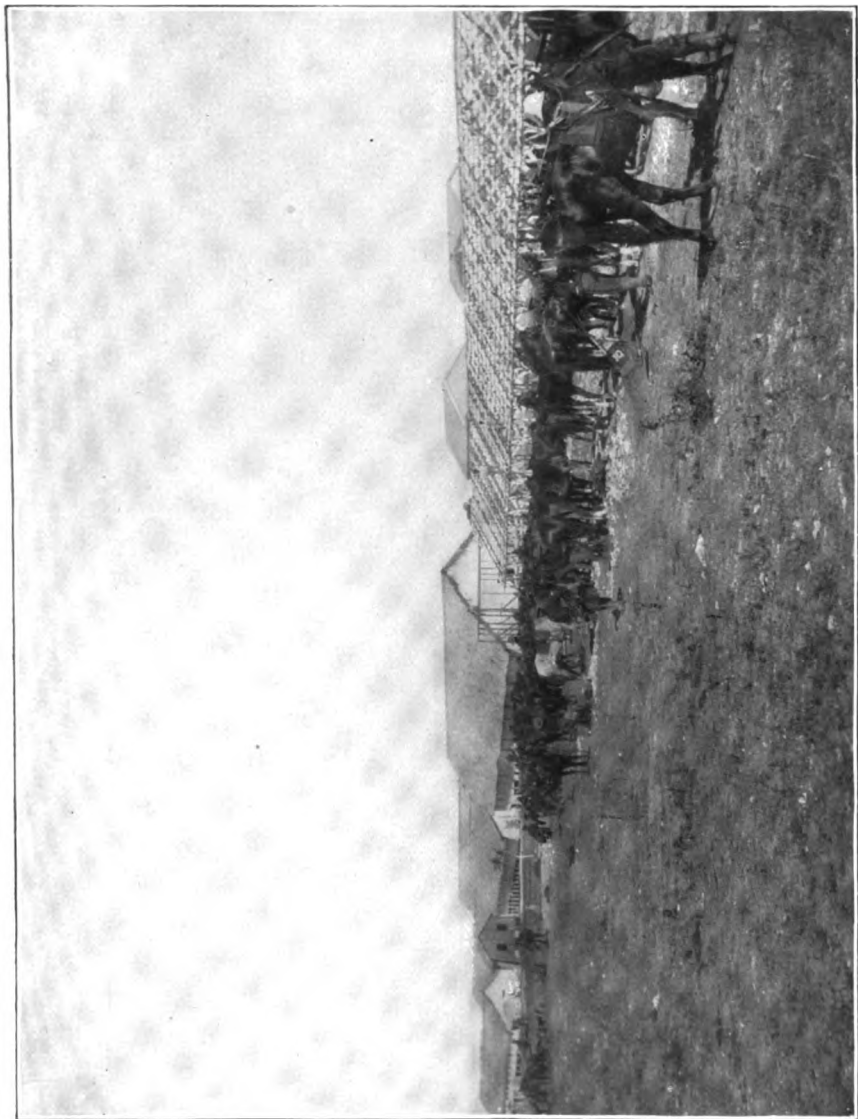
MAYARI, CUBA.



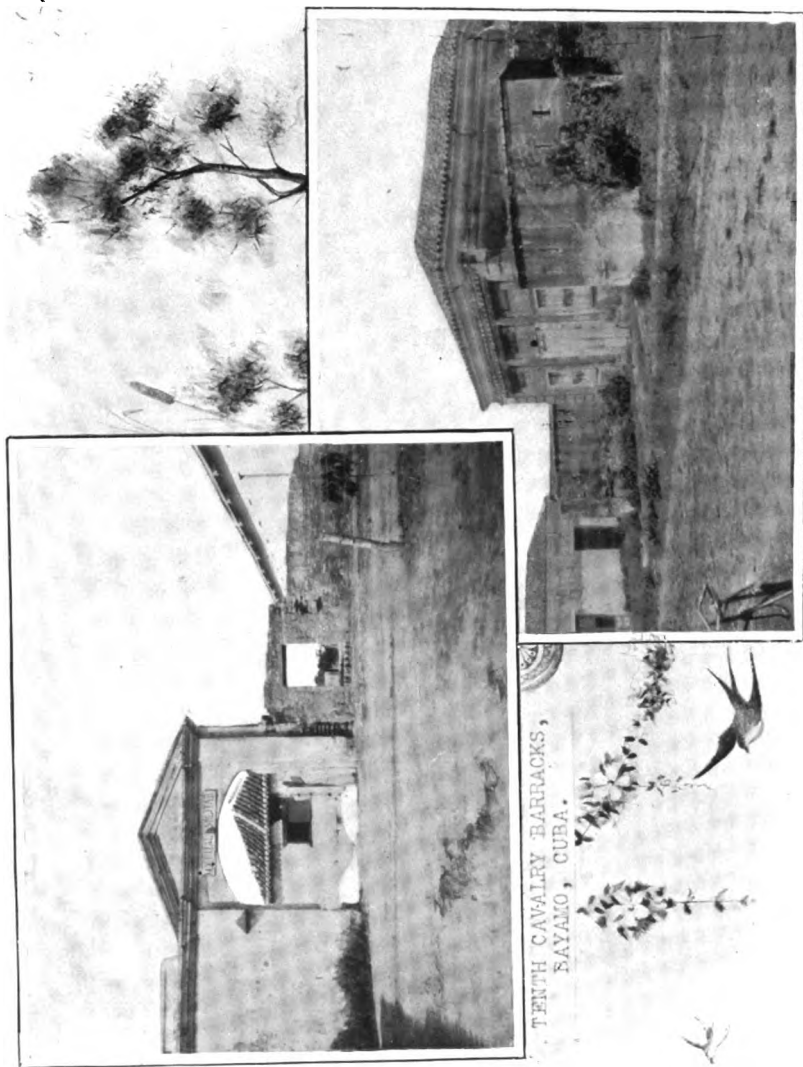
MANZANILLO PLAZA.



CEIBA HUECA SUGAR ESTATE, MANZANILLO, CUBA.

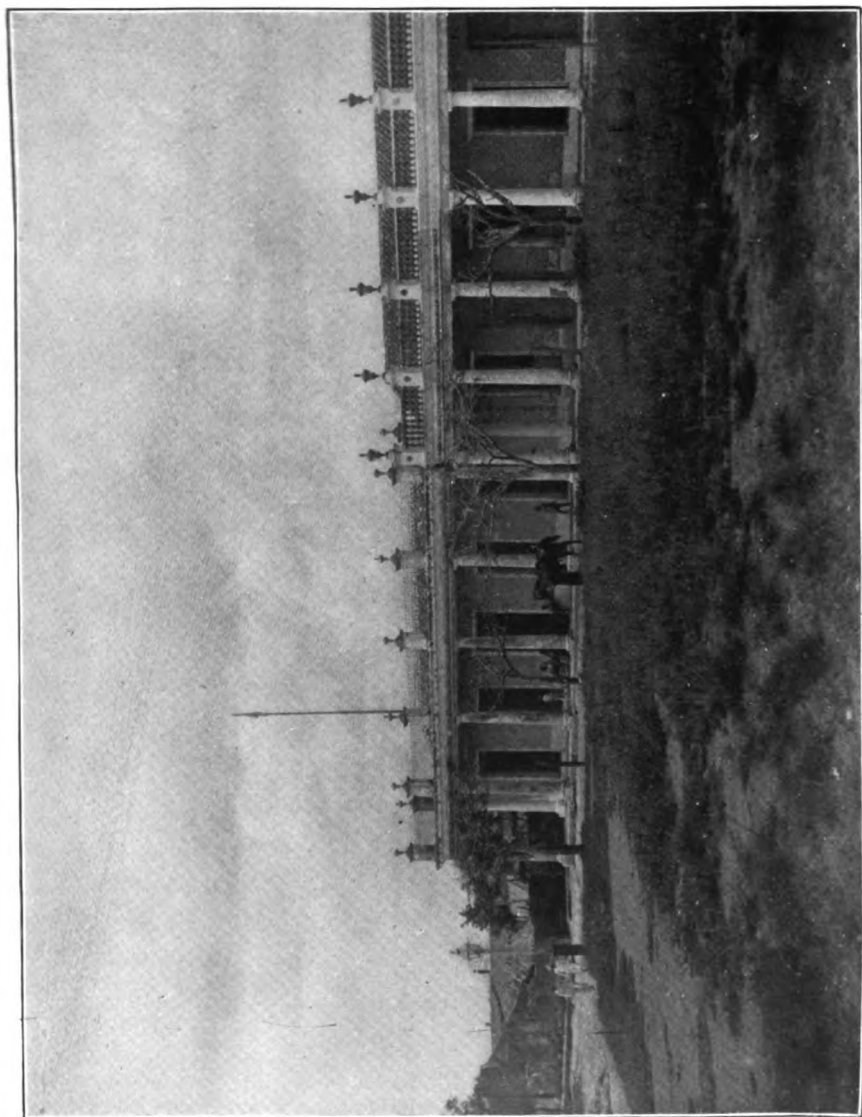


CAVALRY STABLES AT MANZANILLO, CUBA, IN CONSTRUCTION. BARRACKS IN BACKGROUND.

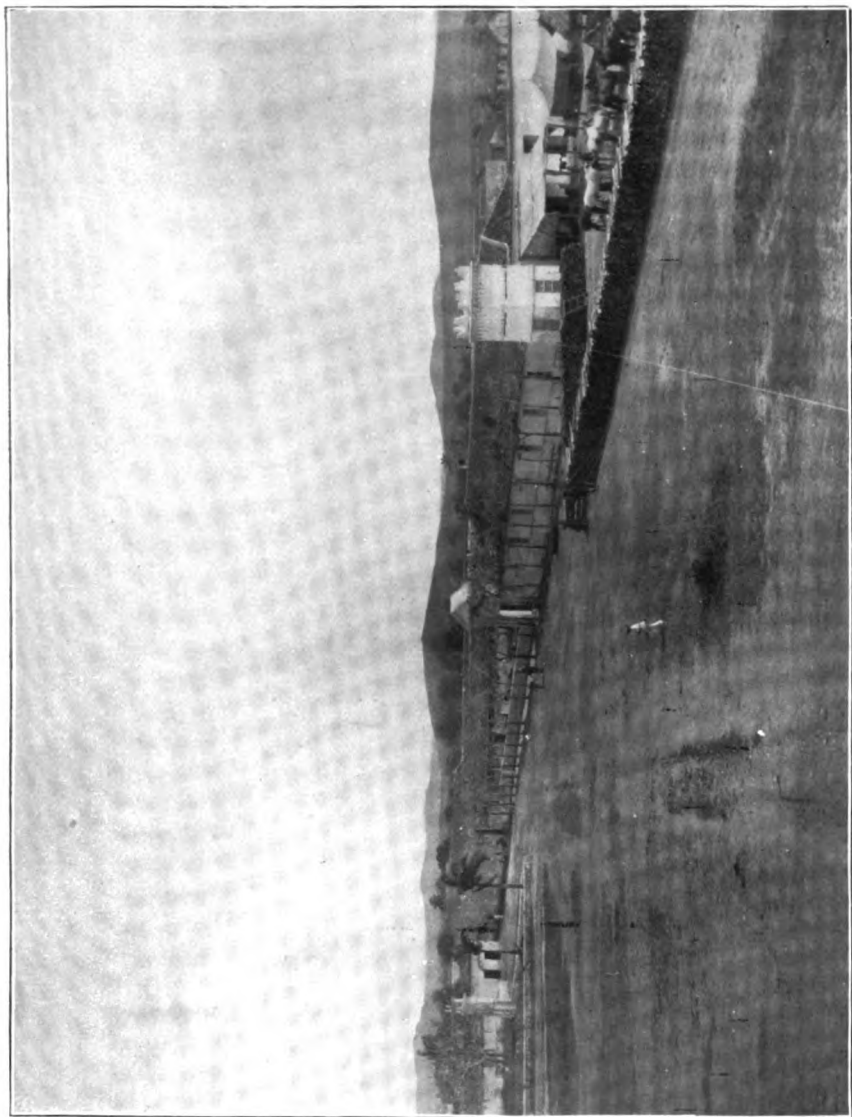


OLD MILITARY HOSPITAL,
BAYAMO, CUBA.

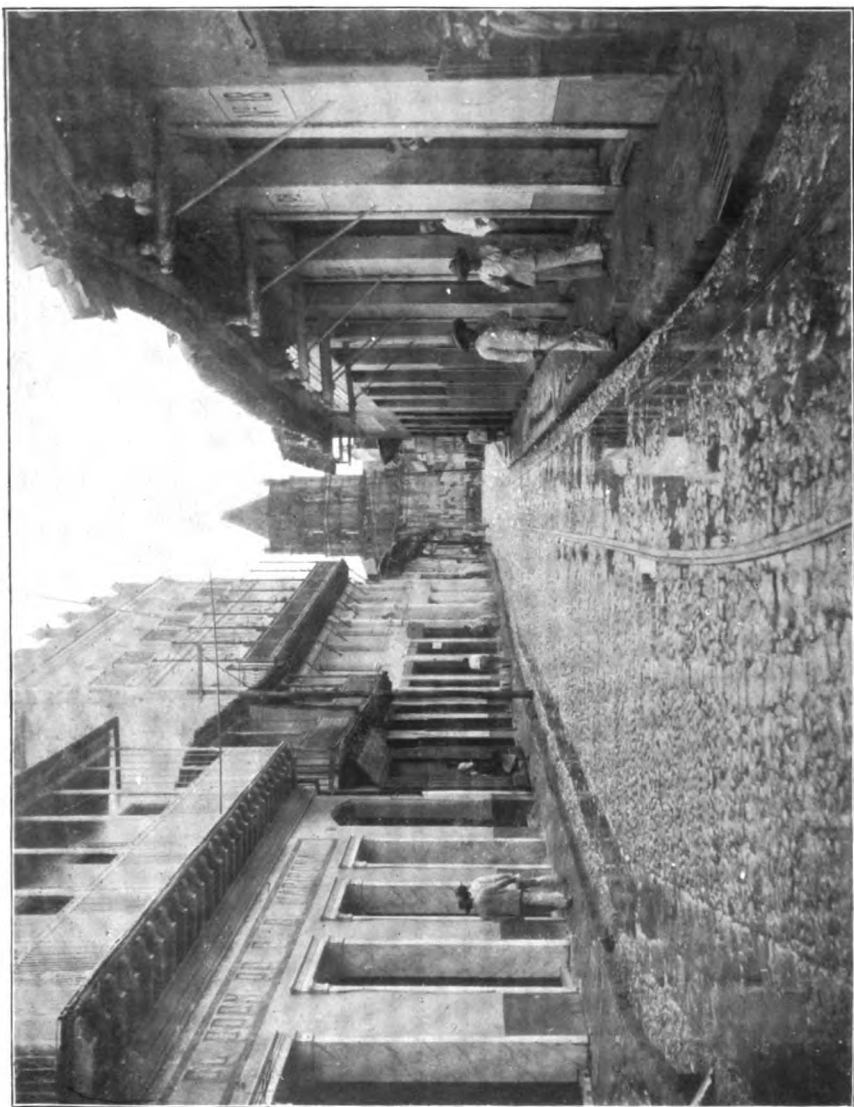
TENTH CAVALRY BARRACKS,
BAYAMO, CUBA.



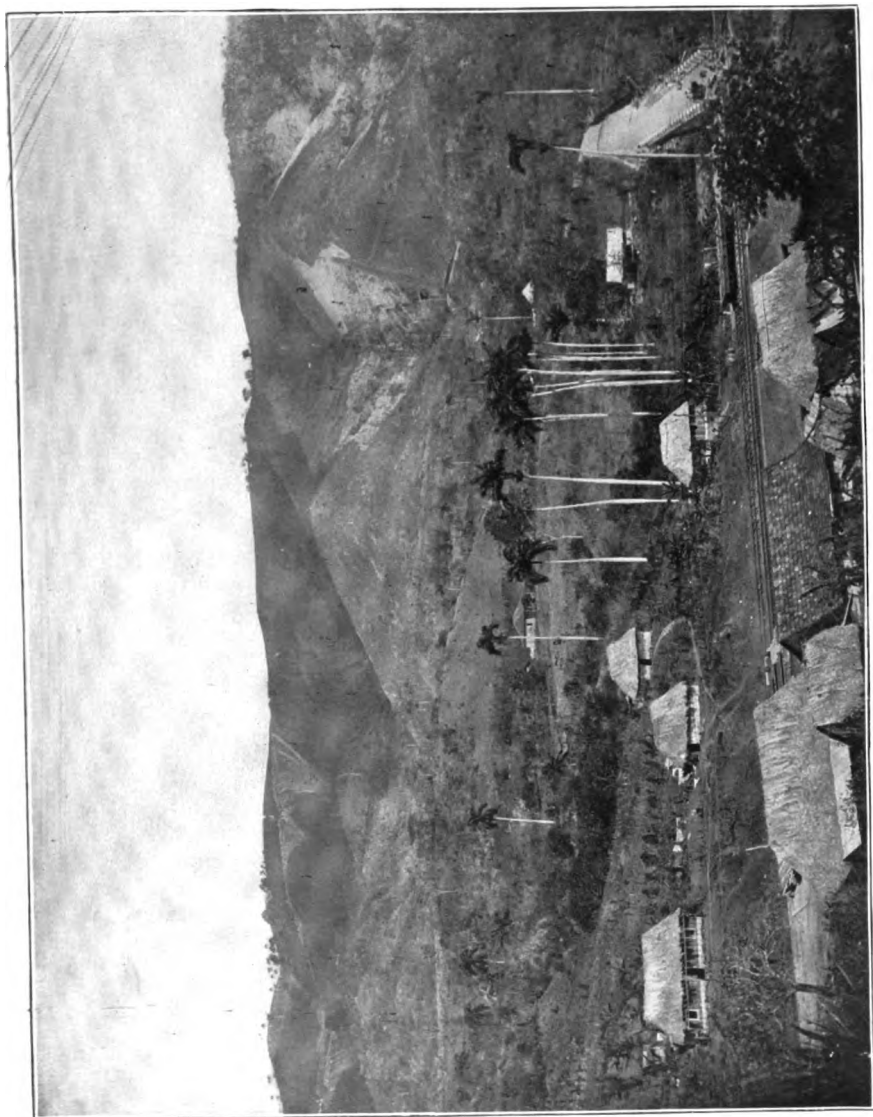
HEADQUARTERS DISTRICT OF HOLGUIN, CUBA.



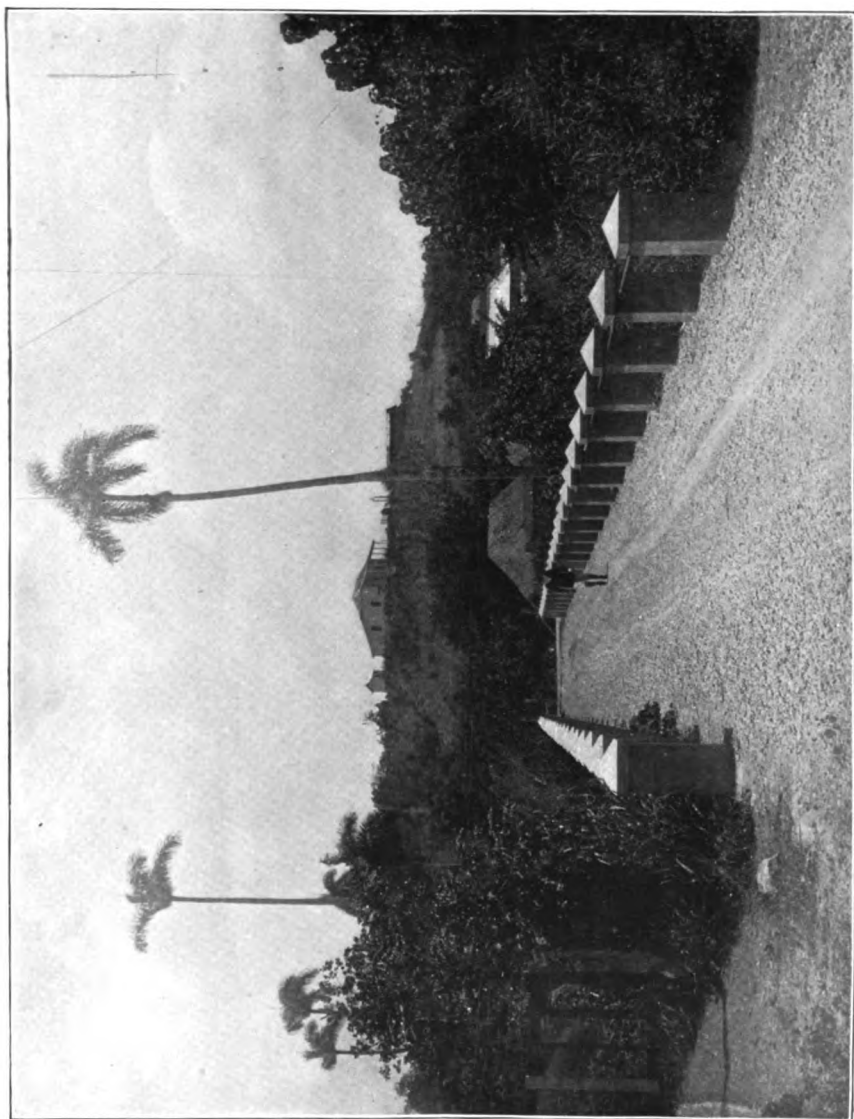
TENTH CAVALRY BARRACKS AT HOLGUIN, CUBA.



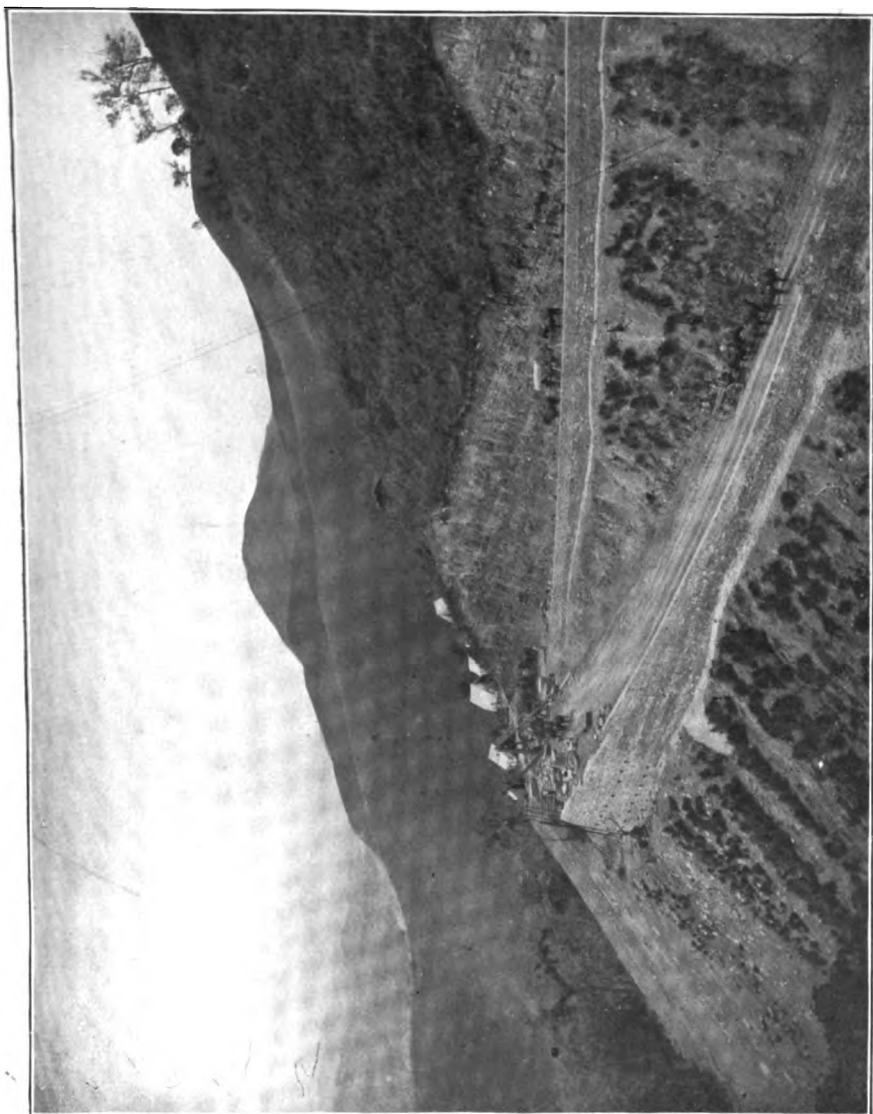
STREET IN PUERTO PRINCIPE, CUBA.



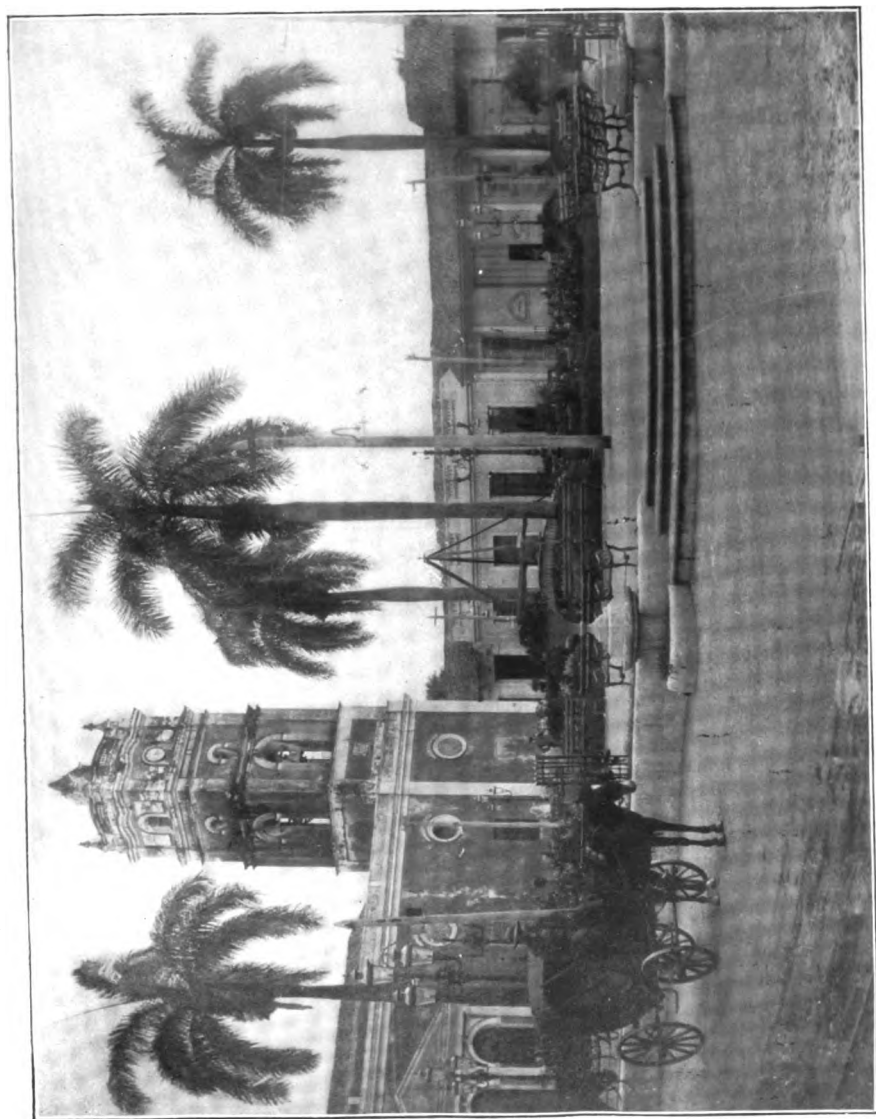
BONIATO, NEAR SANTIAGO DE CUBA, SHOWING MILITARY ROAD.



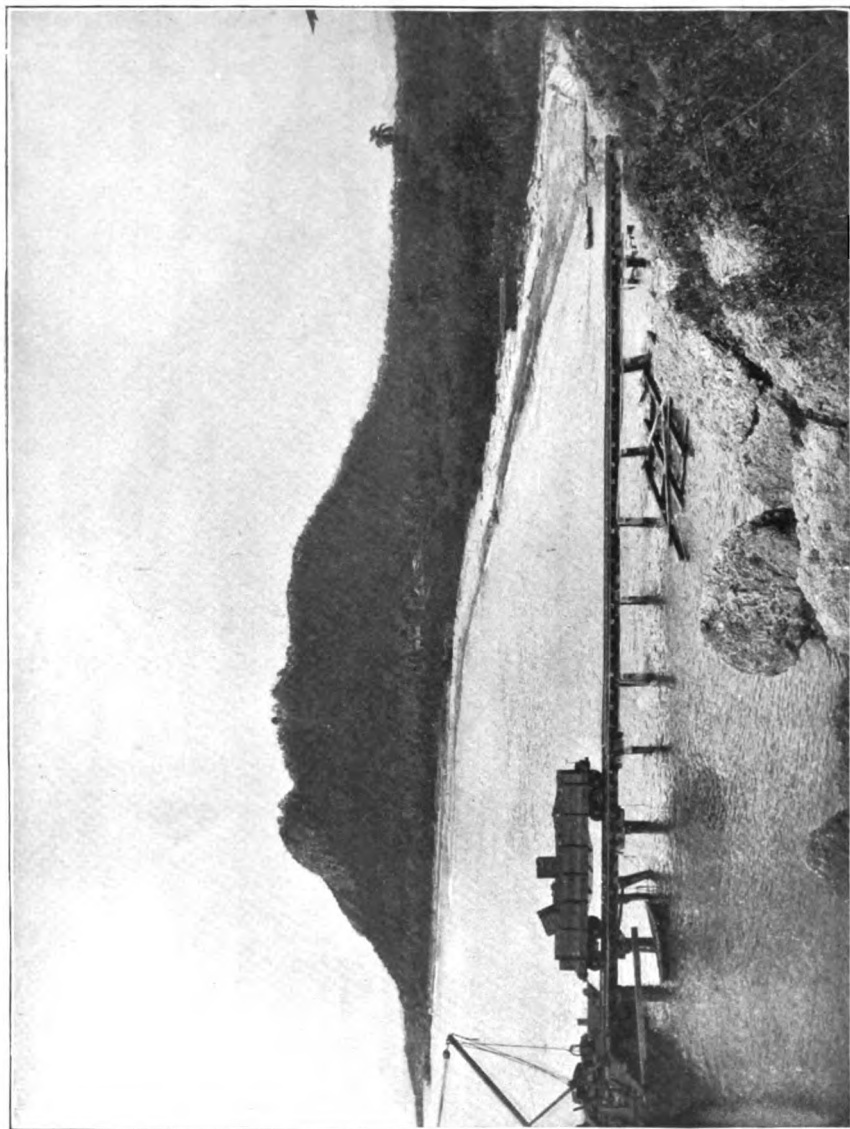
BONIATO BRIDGE, NEAR SANTIAGO DE CUBA.



MILITARY ROAD AT BONIATO, NEAR SANTIAGO DE CUBA.



PLAZA AT PUERTO PRINCIPE, CUBA.



BEACH AT DAQUIRI, CUBA, WHERE AMERICAN TROOPS LANDED IN JUNE, 1898.

law of power to command, for permission to obey the orders of the officers appointed by the President to command them.

THE RURAL GUARD.

A very efficient aid in maintaining order in the rural districts has been the rural guard. They have been industrious, well behaved, and energetic. This force, or some force of which it shall be the nucleus, is bound to be the main dependence in the thinly settled regions until conditions in the island shall have become completely normalized. The guard have learned many soldierly ways, are uniformed, courteous toward the people with whom they come in contact, and are becoming fairly drilled and are reliable.

PUBLIC WORKS.

This work, paid for from insular funds, comprises all classes of public improvements, and has been continued by me in the lines inaugurated by my predecessor. Much road building throughout the department has been done and communication with the interior facilitated. In the district of Santiago, having the largest allotment of funds from division headquarters, the work on public roads, for the first half of the year, was creditably performed by Second Lieut. M. E. Hanna, Second U. S. Cavalry, aid-de-camp. Since his relief it has been managed by the department engineer, First Lieut. R. L. Hamilton, Fifth U. S. Infantry, who has also had charge of the Santiago waterworks and street improvements, the construction of a system of waterworks at Guantnamo, and the building of a dock at Morro Castle. This has demanded much executive ability, untiring industry, and professional attainments of a high order, to the possession of which the quality and amount of work that Lieutenant Hamilton has accomplished bear ample testimony.

SANITATION OF TOWNS.

The sanitation of towns occupied by troops has been under military supervision and has been constantly improving. In Santiago, the chief city of the province, 86½ miles of streets are swept daily, and during the year 25,000 cubic yards of street sweepings have been hauled out of the city. One hundred and eighteen thousand cubic yards of garbage have been removed, in the destruction of which 35,000 gallons of crude petroleum have been used. Four thousand gallons of carbolic acid have been used in the sanitation of Santiago and 11,000 pounds of chloride of lime.

CIVIL MATTERS.

Control over civil matters, exercised through the several district commanders, has been an advisory supervision and the necessity for it is fast decreasing. The civil officials seen honestly to have endeavored to do their duty. They are proving equal to their responsibilities as fast as they are advanced. The relations between the civil and military have been uniformly harmonious. In my opinion, Cuban jurisprudence needs revision and reform. The American idea of the rights of the accused precludes a system that permits the taking of evidence against him in his absence and allows the introduction of hearsay evidence. Trials are not prompt, nor is there much to inspire confidence in the accuracy of judicial findings when action is finally had. The

elections held on June 16 passed off quietly and the new officers have been installed without excitement.

SCHOOLS.

The schools of the department are in an encouraging condition. They have been systematized during the year, salaries have been equalized for teachers, new schools have been established, and new furniture and books have been widely distributed. There are approximately 165,025 children of school age in the department. Of these there is an enrollment in school of 21,303 and an average attendance of 16,512. In my opinion, here lies the hope of the island.

I respectfully invite special attention to reports of the departmental staff for detailed information regarding their departments.

In concluding this report I desire to bear testimony to the fidelity, zeal, and efficiency with which they have all performed the arduous duties of their respective offices.

Very respectfully,

SAMUEL M. WHITSIDE,
Colonel Tenth U. S. Cavalry, Commanding.

REPORT OF BRIG. GEN. GEORGE W. DAVIS, U. S. VOLUNTEERS, COMMANDING DEPARTMENT OF PORTO RICO.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, P. R., August 15, 1900.

The ADJUTANT-GENERAL.

SIR: On the date of the last annual report of the commanding general the organizations serving in this department were the same as now, viz., the Fifth Cavalry; Eleventh Infantry; Fifth Artillery, 2 batteries; Signal Corps, 1 company; Hospital Corps, detachments; Porto Rico Volunteer Infantry, 4 companies.

The principal changes during the year resulted from the withdrawal from the island in March, 1900, of one squadron of the Fifth Cavalry and the recruitment of an additional battalion of Porto Rican volunteers, giving to the whole a regimental organization.

The comparative strength of the command as of date August 1 for last year and the present are given in the following table:

	Troops in department Aug. 1—					
	1899.			1900.		
	Officers.	Enlisted men.	Total.	Officers.	Enlisted men.	Total.
Department Headquarters.....	18		18	16		16
Fifth Cavalry.....	47	1,189	1,236	27	589	616
Fifth Artillery.....	6	192	198	6	202	208
Eleventh Infantry.....	45	1,288	1,283	51	1,168	1,219
Signal Corps.....	2	67	69	1	56	57
Hospital Corps.....	27	147	174	15	101	116
Post noncommissioned staff.....		6	6		6	6
Total regular.....	145	2,839	2,984	116	2,122	2,238
Porto Rican regiment volunteers.....	8	376	384	32	864	896
Grand total.....	153	3,215	3,368	148	2,986	3,134
Attached.....	11	17	28	12		12

Relieved from duty in the department and left for New York August 5 and 6, 1900, 29 officers and 726 enlisted men and 325 cavalry horses, leaving in the department at this date 119 officers and 2,260 enlisted men.

Since the close of the fiscal year, that is to say on May 6, 1900, there were withdrawn from Porto Rico the headquarters and one squadron of the Fifth Cavalry, one battalion of the Eleventh Infantry, and a considerable detachment of the Hospital Corps and another of the Signal Corps.

The only events of importance of a military character occurring during the year were, (1) the utilization of a very large part of the military establishment as a Hurricane Relief Corps; (2) the holding of elections for local officials throughout the department, under military supervision; (3) the transfer to the civil authority of the control and government of the island (this took place on May 1, 1900, in pursuance of orders of the Secretary of War); and (4) the enlistment of a mounted battalion of native infantry.

HURRICANE RELIEF WORK.

In the report of the commanding general for last year will be found on last page a paragraph briefly mentioning the calamity which had just befallen Porto Rico. The effects of this blow were very extensive and far-reaching; indeed there can not be full recovery from the damage to houses, fences, and vegetation for several years. Some 2,700 human beings perished in this disaster, and many have since died who would now be alive but for the hunger, destitution, and disease that directly or indirectly was caused by the cyclone of St. Ciriaco—one of the most appalling storms that ever visited any land.

The relief conducted by the army consisted in the distribution of some 30,000,000 rations (1 pound each) to the famishing natives of this island and extended over a period of almost a year. Besides, relief work was provided for the idle workman so that self-supporting wages could be earned and the facilities for communication between the towns improved. Upon this branch of work nearly one million dollars was allotted by the Secretary of War, and the funds have been, or are being, applied in road construction.

The chief surgeon of the department was president of a board of charities charged with the supervision of food and medical relief, while the chief engineer of the department, as president of the board of public works, organized the road relief, and these two officers have conducted this relief work to the present time.

While the help so generously given by the United States has been the means of saving thousands, indeed many tens of thousands of lives, yet it did not reach every individual who required it.

The blow fell upon Porto Rico very shortly after it had been the scene of conflict of hostile armies, which had resulted in the expulsion of the former government and establishment of American control. The island, as respects its social and domestic institutions, etc., legislative, judicial, and executive functions was in a state of transition. Municipal government could scarcely be said to exist. In many towns municipal treasuries were empty or bankrupt, and political rivalries and animosities ran high. When the time came for these governmental instrumentalities in the towns to render material, substantial aid to the stricken and helpless of their own people, they were powerless in a great many cases, and there were some individual instances of hunger and suffering which the army relief agencies established in every town could not find out or succor, notwithstanding

ing that every possible effort was made to relieve all who were helpless. Issues of food were discontinued on July 15 last, under authority of an approval by the Secretary of War of a recommendation for cessation of these issues by the civil governor of Porto Rico and by the commanding general.

The amounts earned of the allotments by the Secretary of War for relief work on roads to June 30, 1900, aggregate \$392,139, leaving available for continued relief work the sum of \$557,861, which is being earned at the rate of about \$50,000 per month.

In another report for the Secretary of War which I am preparing, I treat quite fully of all matters respecting the military government in relation to civil matters and in that paper the subject of hurricane relief will be mentioned in more detail.

ELECTIONS.

Just before the cyclone swept over the island in August, orders had been given for the holding of the first election of local officials. This was in Adjuntas, where previously the town officials had failed to maintain a government worthy of the name, and an army officer had been placed in charge. Rules for registration and balloting as well as for canvassing were laid down in military orders and the election held on July 25, but the officer in charge permitted an informality in the procedure which caused the result to be set aside, and a new election was ordered. Before this could be held, the storm struck the island and the second balloting was postponed.

In September local officials were properly elected at Adjuntas and before the middle of February, mayors, town councils, municipal judges, and boards of education had been chosen and installed in all the towns of Porto Rico.

The qualifications for voters were determined by the military commander and these, briefly stated, were the possession of a reading and writing knowledge of some language, or the would-be voter must have paid at least \$1 in tax within the preceding eighteen months. Under such conditions the number of votes polled reached an aggregate of 51,179, which is about 5½ per cent of the population.

These elections were honestly held, every man who possessed the requisite qualification had no difficulty in depositing his ballot and every vote was properly counted. Either an officer or noncommissioned officer of the Army was chairman of each board of registration, of supervision, and of canvassers.

These elections conducted under strict army supervision were the first ever held in the island that gave honest returns, and there is no hazard in the statement that there will never be held a fairer election.

There was never present at or near a voting place an armed soldier. The bayonet was conspicuous by its absence.

END OF MILITARY GOVERNMENT.

The act of Congress requiring the establishment of a temporary civil government became a law on the 12th of April, and on the 28th of the same month Hon. Charles H. Allen, governor-elect, arrived at San Juan. On the 1st of May he was duly installed in office with suitable ceremonies of a simple, but dignified character.

An account of those important proceedings and ceremonies is among the inclosures.

PORTO RICAN VOLUNTEERS.

There is now in service in Porto Rico a regiment (eight companies) of native troops, half of whom are mounted on native horses. The lieutenant-colonel (commandant), two majors, and two captains are officers of the Regular Army. One of the lieutenants is a Porto Rican, while the remainder of the officers are ex-officers of Volunteers or are ex-noncommissioned officers and privates of the Regular Army.

The first battalion was recruited early in the year 1899, and the mounted battalion in the winter and spring of 1900. The men are armed with the new Springfield rifle and clothed like our regulars and other volunteers.

The experiment of using the natives as soldiers has in Porto Rico proved a very marked success, judging from the appearance of the organization as it is seen on parade, review, march, and in camp. Of course there has been no occasion for a battle test of the nerve, courage, and endurance of these men, but I believe it will prove satisfactory.

The men are usually small, weighing 10 to 15 per cent less than the average of American soldiers, but they are tough and wiry and have good endurance. They are tractable and obedient and show a willingness and anxiety to learn. They adopt the ways of the American readily and are fond of his food. While they are not habitual meat eaters, and many were almost entirely unaccustomed to it, yet all are eager for the meat component of the ration. In some cases satiety is believed to have caused intestinal disorders, but generally the native troops compare favorably with the Americans as respects health and availability for duty.

The mounted battalion has been a less time in service than the other, and the men have a harder task in learning their duties, because for the second battalion they must learn the work of mounted men in addition to all the rest. Very satisfactory results have been secured and both battalions are in excellent condition for service on this island or elsewhere.

The native horses (or ponies, as they are usually called) are about one-third lighter than the ordinary American horses, but as the men are all lighter the lack of weight of the mounts is not a real deficiency. These native horses cost a little less than \$100 each, and their keep is much less than half as expensive at Henry Barracks than was that of the cavalry horses formerly in service at the same post.

The native horse is given a half ration of oats, and the rest of his food is native green grass. The cost at Cayey of a ration for a native horse is about 20 cents, while the cost of a full forage ration of an American cavalry horse was not less than 40 cents, including transportation in both cases; besides the native animals are immune to many diseases common here to northern horses.

Among the native soldiers there is much less drunkenness than among Americans. Absences without leave are also less frequent.

I urgently recommend the continuance of this regiment in service with a third battalion added to the present force and retaining one battalion mounted. With one battalion of regular infantry and two batteries regular artillery the island would have a sufficient military protection, and the present barrack accommodations would not require expensive extension to provide for all.

DISTRIBUTION OF TROOPS, QUARTERS, AND BARRACKS.

At the close of last year twelve posts were occupied, to wit: Arecibo, Aibonito, Adjuntas, Aguadilla, Cayey, Humacao, Lares, Manati, Mayaguez, Ponce, San German, and San Juan. At the present time the only posts are: Aibonito, 1 company; Cayey (Henry Barracks), 4 companies; Mayaguez, 5 companies; Ponce, 4 companies; San Juan, 8 companies. There are detachments at Aguadilla, Adjuntas, and Humacao, each reporting to the posts whence the troops are detached.

The reduction of separate establishments has much reduced administrative expenses and cost of transportation, as now there are only five companies who do not receive their supplies direct by water.

As respects capacity of the several posts and condition of the accommodations, the following is remarked:

San Juan.—The number of staff officers' quarters is sufficient, but no more than sufficient for the commanding general, his personal and department staff. All are in good condition for comfortable living, and with slight repairs and renovation should continue in good condition indefinitely. All these houses were occupied by military officers under Spain and have so continued to be used during the American occupation. The lands occupied by these buildings also belong to the United States.

The offices of the department headquarters are in the building which was called the by Spain "El Maestrenza de Artilleria." A few inexpensive changes in this fine old building adapted it for occupation and use. The number of office rooms is sufficient.

The ordnance depot is in the old "Parque de Artilleria," and is adequate and suitable.

The quartermaster's shops are in some masonry outbuildings at Casa Blanca, and are adequate and suitable.

The chief commissary's depot is in a building that formerly belonged to the Spanish board of harbor works and it is presumed will have to be given up soon, or rent paid for use. The storehouse is adequate and suitable. Sales room is in the old San Domingo Barracks.

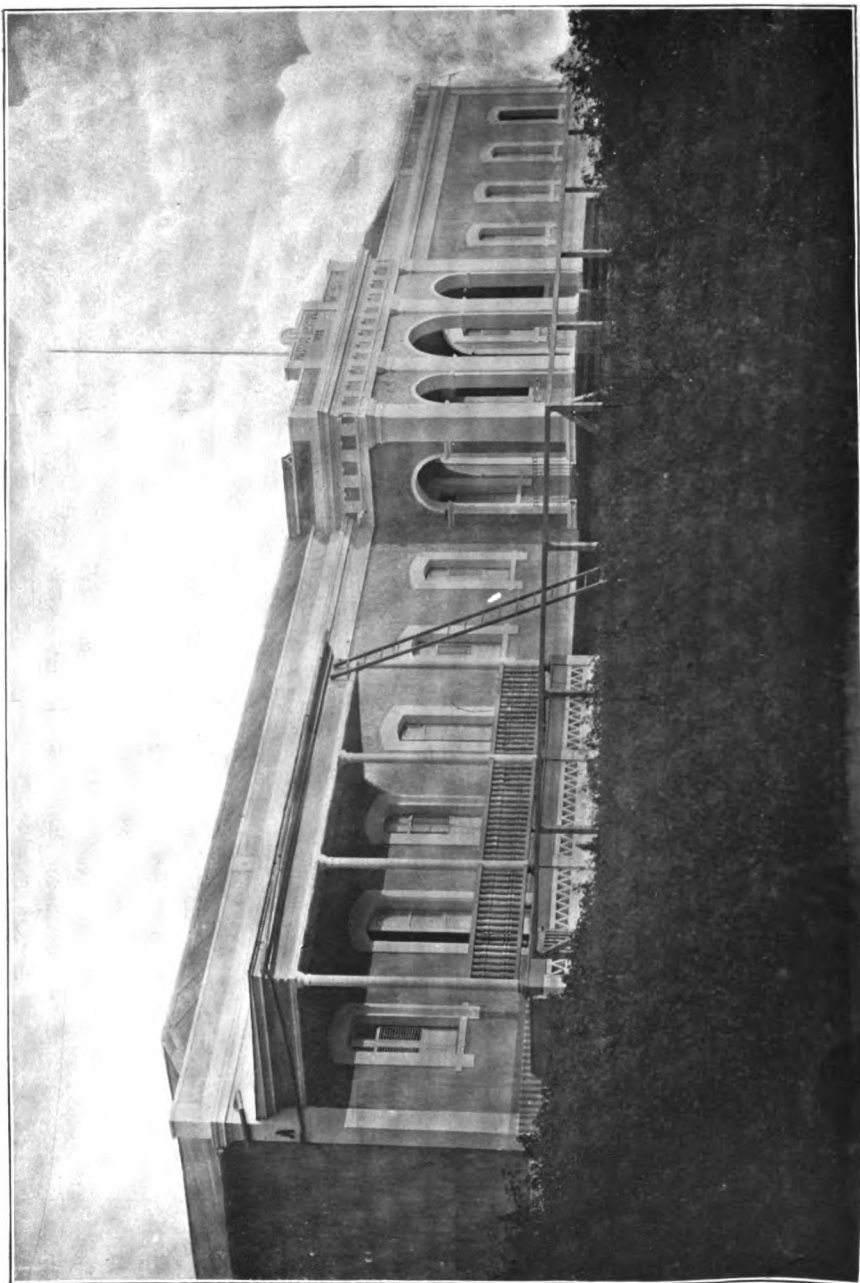
The depot proper for the quartermaster's department is in a building known as the "San Francisco Barracks." It is an excellent establishment for the purpose. Some additional supplies are kept in the "San Domingo Barracks."

The quartermaster's forage and coal supply is kept on the Marina, ground which is controlled by the island government. Here the transports land. No rent has been paid for this ground and landing and none has been demanded. The quartermaster's means of transportation and corral are about a mile east of the center of the city, on San Juan Island. At this place Spain formerly had barracks, but some years ago they were destroyed by fire. Temporary sheds have been erected for animals kept at the depot. The quartermaster's wheelwright, harness, and paint shops are near by, also on Government land.

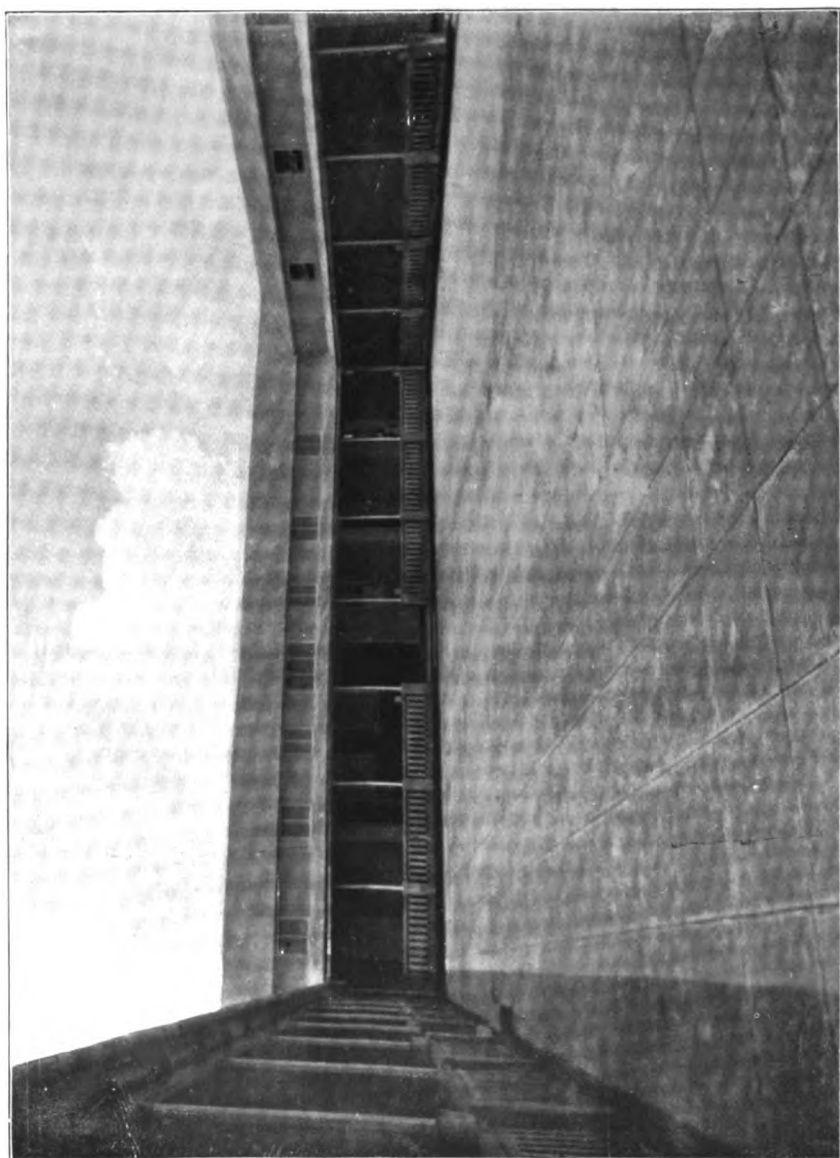
The central office of the United States military telegraph is in a building belonging to the insular government, as is also the office of the engineer officer of the department. No rent has been paid.

The accommodation for troops in San Juan consists:

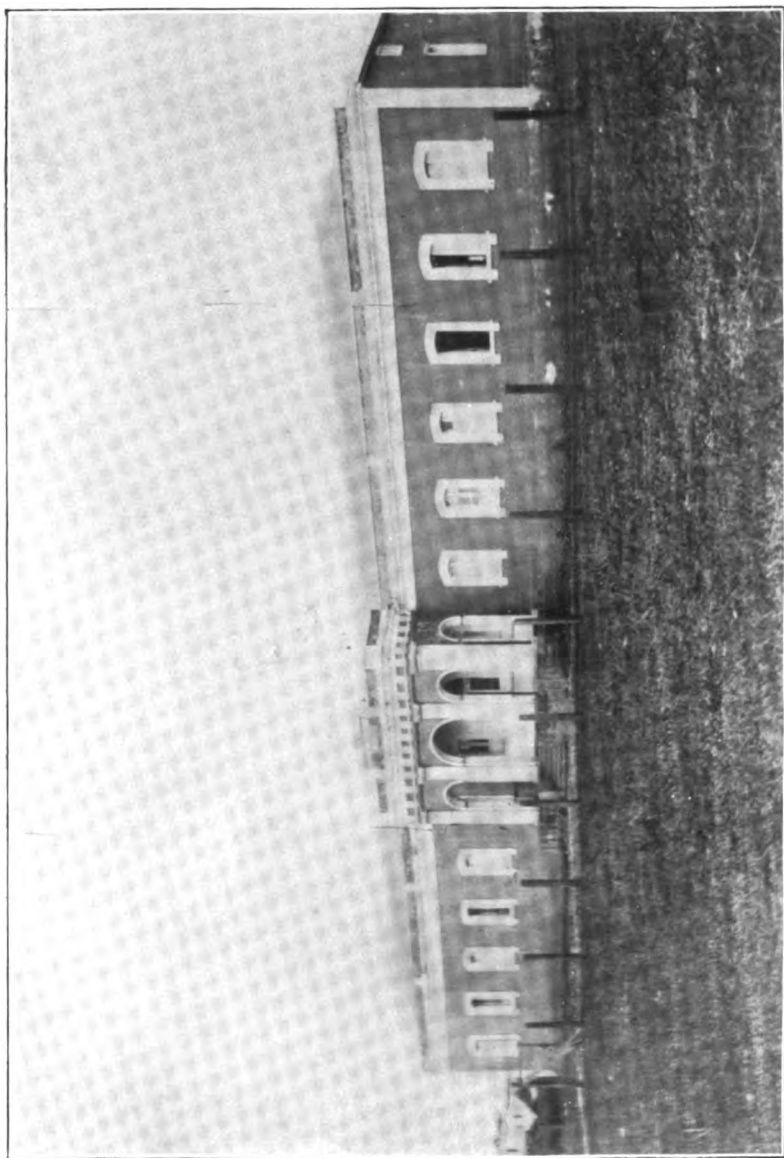
(1) Ballajá Barracks, built a few years ago by Spain, and altogether the best I have ever seen. It has adequate accommodations for the



POST HOSPITAL, MAYAGUEZ, P. R., SEPTEMBER, 1900. EXTERIOR, FACING WEST; REPAIRS AND ALTERATIONS COMPLETED.



POST HOSPITAL, MAYAGUEZ, P. R., SEPTEMBER, 1900. INTERIOR VIEW; REPAIRS AND ALTERATIONS COMPLETED.



UNITED STATES MILITARY HOSPITAL, MAYAGUEZ, P. R. EXTERIOR, FACING WEST.



UNITED STATES MILITARY HOSPITAL, MAYAGUEZ, P. R. INTERIOR.

officers and men of five companies of infantry and a band. The building is three stories high and must have cost several hundred thousand dollars. Spain housed 1,000 men in this building.

(2) Yellow fever barracks: These buildings were built for a hospital, but had not been quite finished when Spain evacuated the island. They have never been occupied by the sick and can very well accommodate three companies of full strength, although four companies have simultaneously occupied the buildings.

(3) El Morro has good accommodations for one battery of artillery and its appropriate officers, the latter in new detached cottages.

(4) San Cristobal has same capacity for men as El Morro, but larger number of officers' quarters.

Altogether the post of San Juan could well contain and comfortably accommodate 10 companies, and with some crowding would hold 12 companies.

The post hospital is a good building, with accommodations for 400 sick, a very much larger number than will probably ever require hospital treatment at this station.

The ovens for the San Juan garrison are distant and inconvenient, but in good condition. They are adequate for baking 2,000 loaves of bread per twenty-four hours.

The post transportation is kept in suitable temporary buildings near Santa Elena Battery. No extensive storehouses for the post are necessary, for all supplies are received direct from depot.

The post has an excellent ice machine, having capacity of 2,000 pounds per day. In connection with it is also distilled all water drunk by the command, and hospital washing is done in the laundry attached. The city aqueduct supplies water, and there is a good sewer arrangement.

Altogether the military establishment at San Juan is very complete and satisfactory in every respect.

The present garrison consists of headquarters, band, and 5 companies Eleventh Infantry, 1 troop Fifth Cavalry, and 2 batteries Fifth Artillery. No rents are paid at San Juan.

Cayey (Henry Barracks).—This post is 61 kilometers south of San Juan, on the road to Ponce. Here is a reservation of 11 acres and barracks (but no officers' quarters) for 1 company, but when the second or mounted battalion of Porto Rico Volunteers was raised, the rendezvous was fixed at Cayey, soon after named Henry Barracks, in memory of the late Maj. Gen. Guy V. Henry, a former department commander.

The mounted battalion of Porto Rican Volunteers has since been camped at Henry Barracks on rented ground, the building thereat being used for hospital, storehouse, and quarters for the commanding officer.

The barrack referred to has been erected during the year, and replaces one of Spanish construction built of masonry, which was demolished by the hurricane of San Ciriaco.

Aibonito.—Nineteen kilometers southwest of Cayey, on road to Ponce; has a reservation of 4 acres upon which the Spaniards had constructed accommodations and hospital for about 200 men. These structures were destroyed in August by the storm, but have been rebuilt in much better manner.

This post has an elevation of 2,100 feet and was therefore considered by Spain as a good acclimatizing station. One troop of cavalry is now well accommodated at this place. There are no officers' quarters, save some very temporary shelters, nor is the area of land adequate for such quarters or for drill grounds. A large amount of work has been done here during the year by the present commanding officer.

Ponce.—Here is a reservation of about 13 acres and a barrack for 4 companies. There are five sets of officers' quarters, a good storehouse for quartermaster and commissary, quartermaster's shops, and on a detached plot of ground a very fine hospital, having accommodations for over 200 patients.

There is no space for corral nor stables, nor for erection of additional officers' quarters. The post and hospital are supplied with city water. There is no sewer. The post has arrangements for baking its own bread.

Mayaguez.—Here is a reservation of $3\frac{1}{2}$ acres for the barracks and another of three-fourths of an acre detached for the hospital. The barracks can accommodate four companies very comfortably. There is a new bakehouse and three sets of noncommissioned officers' quarters, but no provision whatever for safe-keeping of quartermaster's and subsistence stores and public animals, and none for officers' quarters; all such accommodations are rented. The hospital has ample accommodations.

The city has a fair water service under pressure and the post is connected, but there are no sewers.

Aguadilla.—There is here a reservation of about 2 acres and a small barrack sufficient for about 75 men, but no officers' quarters, hospital, storehouses, or stables. A detachment of troops from Mayaguez garrisons this place.

Vieques.—Here is a small reservation of unascertained area, of which the title is undetermined. Inclosed within these limits is an old-type fort that once mounted a half dozen smooth bore iron guns, about 24-pounders, but now dismounted. There is a barrack capable of accommodating 1 company, but no troops have been at this place for several months, save one or two signal soldiers.

GENERAL REMARKS UPON THE FURTHER MILITARY POLICY.

As will be seen from the foregoing description, all the barracks, save for 2 companies, are on the seacoast. The whole are adequate for 22 companies, although Spain habitually quartered in them a force more than twice those numbers.

For two or three years there has been no yellow fever in Porto Rico. When there shall be another visitation the troops should be moved to the elevated interior. The best places for refuge camps are Cayey and Aibonito. These two points should therefore be held for contingent use if the force to be permanently retained in Porto Rico is more than two battalions.

The law of Congress respecting the organization of a temporary government for Porto Rico provides that there shall be two houses in the insular legislature, one of them elective. The election for members in the lower house has not yet been held. When the organization of the civil government shall have been completed and the civil machinery is

all in proper adjustment and working well, there will be no necessity to retain in this island so large a force as at present. The reduction of the garrison to an aggregate of 18 companies can certainly be made, and perhaps a still greater reduction. Troops ought never to be distributed in smaller garrisons for any considerable time than in battalions of 4 companies.

If it should be found possible to limit the force in Porto Rico to, say, 1 battalion of regular infantry, 1 battalion of native infantry, and 2 batteries of artillery, a good distribution would be:

San Juan.—Two batteries artillery, 1 battalion regular infantry.

Cayey.—One battalion mounted native infantry.

In this case the barracks at Ponce and Mayaguez could be given up, but if the permanent force should number 2 battalions of natives and 2 of regular infantry, with same artillery as before, the best distribution would be:

San Juan.—Two batteries artillery, 1 battalion regular infantry.

Ponce.—Two companies regular infantry; 2 companies native infantry.

Mayaguez.—Two companies regular infantry; 2 companies native infantry.

Cayey.—Four companies native infantry, mounted.

In the event that the latter force was to be provided for, purchase of land and erection of buildings should be made as follows:

San Juan.—Nothing additional.

Cayey.—Five hundred acres of land, hospital, barracks, and officers' quarters for 4 companies; storehouses now adequate.

Ponce.—Land for corral and officers' quarters and administration building.

Mayaguez.—Land for officers' quarters, storehouses, drill ground, and stables.

If it should be decided to limit the garrison to a force just sufficient to take care of the guns of position at San Juan, a course which I can not conceive possible, then all the barracks, military lands, etc., would be given up; but the island of Porto Rico must have in the future, as it had in the past, great military importance. It was three times attacked by the English, and once taken by the troops of that nation. It was once attacked by the Dutch, and the capital occupied, all except one fort. During the seventeenth century Spain expended more than \$4,000,000 in the fortifications of San Juan, and upon surrender to the United States by Spain the fortifications were found to be of great strength and the armament extensive. It is inconceivable that the United States will leave the island without adequate protection of men, ships, and guns—the only land owned by the United States in the West Indies.

Land for a naval station has already been reserved by Executive order, and a coaling and repair station will probably be erected at San Juan.

The present armament should be increased and modernized, and a sufficient force of artillery kept here for the care of the guns.

This naval and artillery force, supplemented by two battalions of regular infantry and two battalions of natives (one of the latter to be mounted on native horses), seems to me as sufficient, but not too large for a permanent garrison for Porto Rico.

THE DEPARTMENT STAFF.

The changes that have occurred in the staff during the year are the following:

Lieut. Col. William P. Hall, assistant adjutant-general, relieved by Maj. William E. Almy, Porto Rico Volunteers, on April 5, 1900.

Lieut. Col. C. H. Heyl, inspector-general, relieved December 31, 1899, by Maj. A. C. Sharpe, inspector-general, volunteers, and the last named relieved May 1, 1900, by Lieut. Col. R. B. Harrison, inspector-general, U. S. Volunteers.

Maj. J. Van R. Hoff, chief surgeon, relieved August 6, 1900, by Maj. Peter R. Egan, Medical Department.

Maj. George G. Arthur, chief paymaster, volunteers, relieved September 30, 1899, by Maj. Charles L. Whipple, paymaster, U. S. A., and the latter relieved April 30, 1900, by Maj. H. L. Rogers, paymaster, U. S. A.

First Lieut. Samuel G. Jones, Fifth Cavalry, relieved as engineer officer of department August 31, 1899, by Capt. William V. Judson, Corps of Engineers, and the latter relieved on July 31, 1900, by First Lieut. H. E. Eames, Eleventh Infantry, Capt. C. A. F. Flagler, Corps of Engineers, under orders to report as engineer officer of the department.

Second Lieut. C. G. Hall, Fifth Cavalry, ordnance officer of the department, relieved February 2, 1900, by Maj. Earl D. Thomas, Fifth Cavalry, and the latter relieved on August 1, 1900, by Maj. S. A. Day, Fifth Artillery.

First Lieut. George T. Langhorne, First Cavalry (major Thirty-ninth U. S. Volunteers), personal aid to the department commander, was relieved on October 15, 1899, by First Lieut. F. Le J. Parker, Fifth Cavalry.

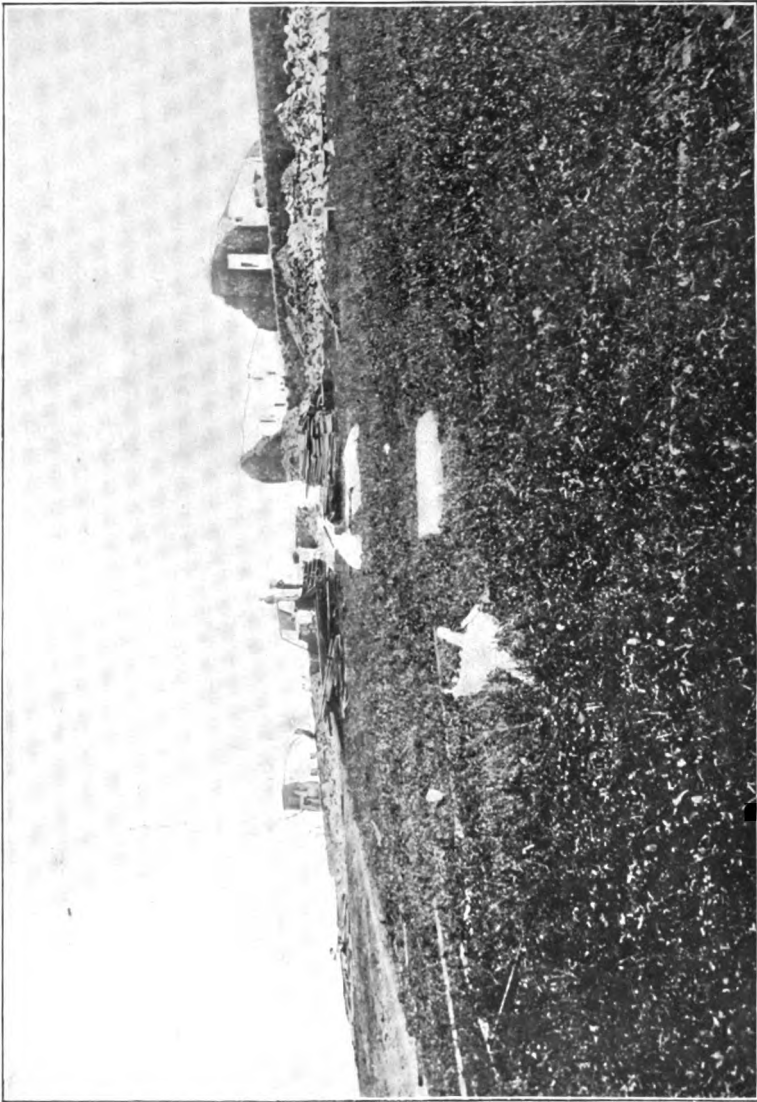
Besides the officers on department staff duties, a very large number were at various dates and for different periods performing civil duties.

On the 30th of April all military officers holding civil positions were relieved, but subsequently and in pursuance with the joint resolution of Congress approved May 1, 1900, several of these officers were redetailed on their respective civil duty and so continued until August 1, 1900.

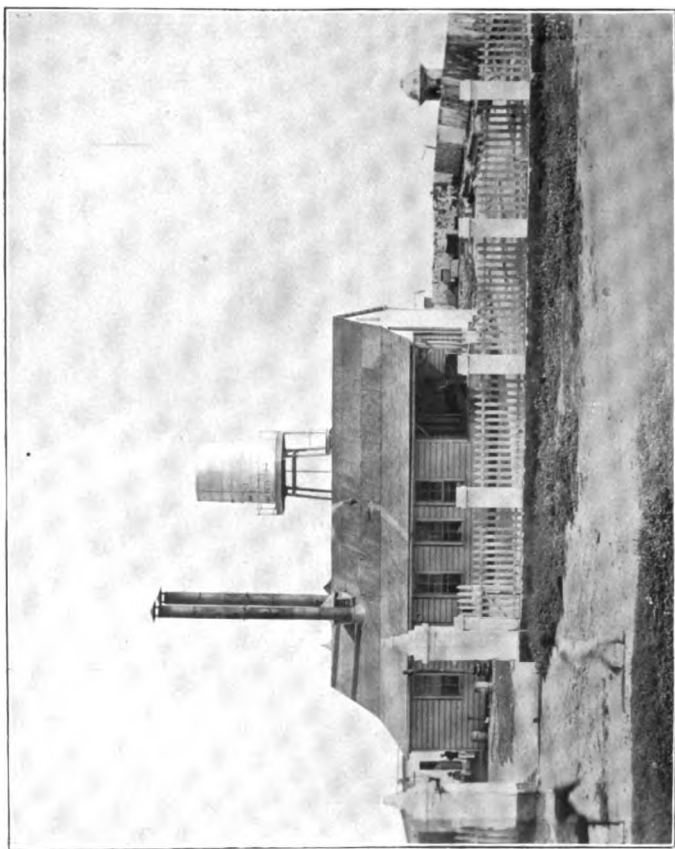
INSPECTION SERVICE.

Lieutenant-Colonel Heyl continued as the department inspector until the end of the calendar year. From January to May 1 Major Sharpe was the inspector, and from the latter date to the present time, Lieut. Col. R. B. Harrison, U. S. Volunteers, has had the assignment. Major Sharpe has also performed inspection service in the department by assignment of the Secretary of War, and Maj. Earl D. Thomas, Fifth Cavalry, under special assignment, inspected four posts during an illness of Colonel Harrison.

From the date of arrival here of the present department commander and while the military government continued, the service of every staff officer was utilized to his fullest capacity in the performance of civil functions. The responsibility for all expenditures was placed upon the undersigned and the duty as well of reporting all receipts and expenditures of his predecessors. It was not possible to establish a complete auditing system until June 30, 1899, but previous to that



RUINS OF MILITARY BARRACKS AND HOSPITAL, CAYEY, P. R. HURRICANE AUGUST 8, 1899.



ICE PLANT, SAN JUAN, P. R.—MEDICAL DEPARTMENT, UNITED STATES ARMY.

date and subsequent to military occupation some \$2,000,000 were received as public revenues. I felt obliged to devolve upon the inspector-general of the department the work of an examination of these accounts. So extensive and confining were these duties that he was obliged to defer necessary work of inspection of troops and money accounts.

Colonel Heyl's reports of his examinations were forwarded at their dates and have already been published by the Government. This special service largely occupied the time of the inspector, but he made several inspections of troops, property, and disbursing accounts.

Major Sharpe attended to several matters of army inspection, but he also was charged with very important civil duties and could give but a small part of his time to routine matters. He made two inspections of the civil treasurer's and auditor's accounts, and several military examinations.

In June and July Major Thomas inspected the posts of Manati, Aguadilla, Mayaguez, and the subpost of San German, eight organizations in all. He also inspected a large amount of unserviceable property and all reports have been forwarded.

Lieutenant-Colonel Harrison has inspected the posts of San Juan, Ponce, Adjuntas, Cayey, and Aibonito. He has also inspected a large amount of property at same and other stations, and several transports.

MILITARY JUSTICE.

The judge-advocate's reports give usual data respecting the enforcement of discipline by resorts to the law military.

The lapses of the soldiers in this island from the required standard of duty and deportment have been in number and gravity about the same as formerly and elsewhere. There have been seven more desertions during the past year than occurred in the previous one. It appears also that the number of apprehensions of deserters was nine for the year, or less than one-quarter as many as deserted.

The reward for the apprehension and delivery of deserters was fixed at \$30 until the year 1890, when it was raised to \$60. In 1894 it was reduced to \$10, and so remained until July 1, 1899, when the amount of authorized reward was raised to \$50.

I have long been of the opinion that the proportion of the deserters caught and punished bears to the whole so small a ratio that no influence whatever is produced upon military discipline in general by the apprehension and punishment of the few men who are secured. In fact not an inconsiderable number of those who are caught are really participants in the reward itself through an amicable arrangement made by the deserter to disclose himself on condition that the sheriff or policeman receiving the reward shall divide the proceeds with the self-confessed deserter. These same civil officers have been known to interest themselves in preventing return to duty of a soldier absent without leave until he should have been more than ten days absent, and therefore reported by his captain as a deserter. The civil officer then arrests his victim, turns him over to the military, and receives his reward.

Every soldier in the Regular Army is actually a volunteer. Upon enlistment he subscribes to an oath, which, in fact, is nothing more or less than a promise or contract of future service and conduct. Public

sentiment in America is inclined to regard the desertion of a soldier as nothing more than a breach of contract. There is no strong public sentiment, ever active, to discountenance and punish desertion as there is in countries whose armies are filled by conscription. In France, Germany, Austria, and Russia there are practically no deserters, while in England and the United States, whose armies are filled by means of voluntary enlistments, desertions are very common, and ever will be.

If a man is disgusted with his contract with the Government, and he reaches a state of mind constraining him to desert, the sooner the command is rid of that man the better, and his arrest and apprehension is an act without profit or benefit to his regiment or to the military service. Money paid for him is money wasted.

The policy ever pursued by the United States and England is to rely upon the people to furnish armies for national defense and other purposes. Conscription was resorted to by the United States in 1864, and a sorry lot of soldiers was the result. The Boers have only volunteers in their army, and they seem to find no difficulty in maintaining an effective force in the field, and England is contending for mastery of the Transvaal, using in the campaign her volunteers.

I am of the opinion that it is a waste of money to pay rewards for the apprehension and delivery of deserters. I would not arrest a deserter at all and I would not reenlist him. If deserters succeeded in passing the recruiting officers and were afterwards recognized they should be stripped of their uniforms, given a cheap suit of clothes, and drummed out of camp, placarded "deserter."

It will be observed that the total amount of forfeitures by sentence of courts-martial reaches the large sum of upwards of \$17,000 for the year.

I concur in the recommendation of Major Sharpe that the general court-martial be not restricted to a confinement of three months in cases of dishonorable discharge of soldiers for general worthlessness when evidenced by many previous convictions, and that the confinement to be imposed by the summary court be extended to three months.

QUARTERMASTER'S DEPARTMENT.

The year has been one of special activity for this department. The troops were occupying many stations to which access was difficult and to some only possible by pack mules. The Spanish barrack accommodations were all overhauled and modernized. The accumulation of some supplies to meet the wants of the volunteers was largely in excess of the needs of the remaining force, and much of this surplus has been disposed of. During the year over 30,000,000 pounds of relief supplies have been received and distributed through the instrumentality of the Quartermaster's Department, and large quantities of property for various branches of the insular government were received and cared for by this department.

A well-appointed depot for the quartermaster property has been fitted up and put in use. An extensive corral and sheds for public animals have been installed and equipped. The barracks of Morro Castle have been extensively overhauled and rearranged, and officers' quarters outside have been erected, while at Cayey (Henry Barracks) extensive temporary shelters have been put up for accommodation of the mounted battalion of the Porto Rico regiment.

During the year 50 horses and 791 mules that were not required were shipped back to the United States as not needed in Porto Rico, and 12 companies of troops have been returned to the States.

The tug *Slocum* rendered most valuable service for about ten months of the year, while the transport *Wright*, succeeded by the *Ingalls*, has been here in service the remainder of the time.

The work of the department has been well done, and many reductions of expense have been made and others are contemplated at an early date.

SUBSISTENCE.

No troops have ever been better supplied with the authorized food than those stationed in Porto Rico. While the island should easily supply fresh meat, sugar, and coffee for the army on better terms than could be had elsewhere by the purchasing agents, yet it has not been found to be practicable to obtain these commodities of satisfactory quality or at reasonable prices.

The island abounds with fine cattle, but there is no butcher in Porto Rico who provides arrangements for chilling the meat or keeping it in cold storage. The practice here is to cut all flesh from the bone and to sell all muscular tissue at the same price. The flesh of the slaughtered animal never reaches a lower temperature than about 80°, and the animal heat never really leaves it. The flesh must be cooked and eaten within a few hours from the shambles or it will spoil. Besides, the price is nearly double what good beef commands in the United States.

The refrigerated beef brought here from the United States is infinitely preferred by the troops to the native production. The refrigerated variety supplied by Swift & Co. for the past two years has been universally acceptable, and the quartermaster and commissary has been able to deliver it in excellent condition at the most remote mountain posts.

When authority was given about a year ago to buy coffee in Porto Rico some purchases were made at about 10 cents per pound, but about the same time the Cuban prohibitive tax was very greatly reduced. The crop maturing in 1899 was practically destroyed about this time, and the combined effect of these influences was to raise the price of coffee to about double what a good grade of Rio could be bought for in the United States. Of course further purchases could not be made under these conditions. While the price of Muscovado and low-test centrifugal sugar was but about 2½ to 3 cents per pound, yet a centrifugal of high test, such as the troops habitually receive at home, commanded a much higher price.

Some months ago the sugar dealers were confident that Porto Rico was to receive substantial advantage from the lowering of the rate of customs taxation on raw sugar exported to the United States, and they promptly raised the local price of the kind of sugars the troops received. While the centrifugals testing 96° were sold locally at 4 cents per pound, for those testing 98°—required by the troops—6 cents or even 8 cents per pound at retail was demanded; a price 50 per cent higher than that at which sugar could be bought in the United States.

Consequently the effort failed to help the island to market locally some of its surplus. Of course all this will be changed in time, but at present the ruling thought among local merchants and producers

seems to be to exact from the Government as a buyer prices 50 per cent above true values.

The report of the chief commissary states the total quantity of the relief supplies which were shipped to Porto Rico in aid of the sufferers from effects of the devastating hurricane of August, 1899. The cost of these supplies purchased by the Commissary Department was \$824,828.12. To this may be added \$6,652.04, the invoice price of the articles issued by post commissaries early in August to relieve acute distress, making the total value of subsistence supplied through the Subsistence Department \$831,480.16.

In a report on the military government of Porto Rico which I am now preparing I shall treat of this matter of hurricane relief at length, and therefore make no further reference to it here.

At all the stations where troops are serving, except Mayaguez, there are excellent storage facilities for subsistence, and the percentage of loss from decay, exposure, vermin, and theft is not greater in Porto Rico than in other departments. In Mayaguez the stores are kept in a rented building.

There are ovens owned by the Government at all posts, in which bread is baked by the troops and customary savings secured.

All the troops and hospitals in the department are supplied with the authorized amount of ice, which is most acceptable.

HEALTH.

The report of the chief surgeon is so full and satisfactory that nothing more need be said in respect to the work of the medical department.

A great burden was laid upon the medical officers by the orders of the commanding general which imposed extra work upon them, caused by the overwhelming calamity that the island suffered in August, 1899.

The chief surgeon was appointed president of a board of charities which was charged with the distribution of relief supplies sent to the island from the United States, and post surgeons had assigned them important work connected with same relief work. The chief surgeon was, in fact, the executive officer of the commanding general with respect to this important duty devolved upon him by orders of the Secretary of War. The assistance of Major Hoff was invaluable.

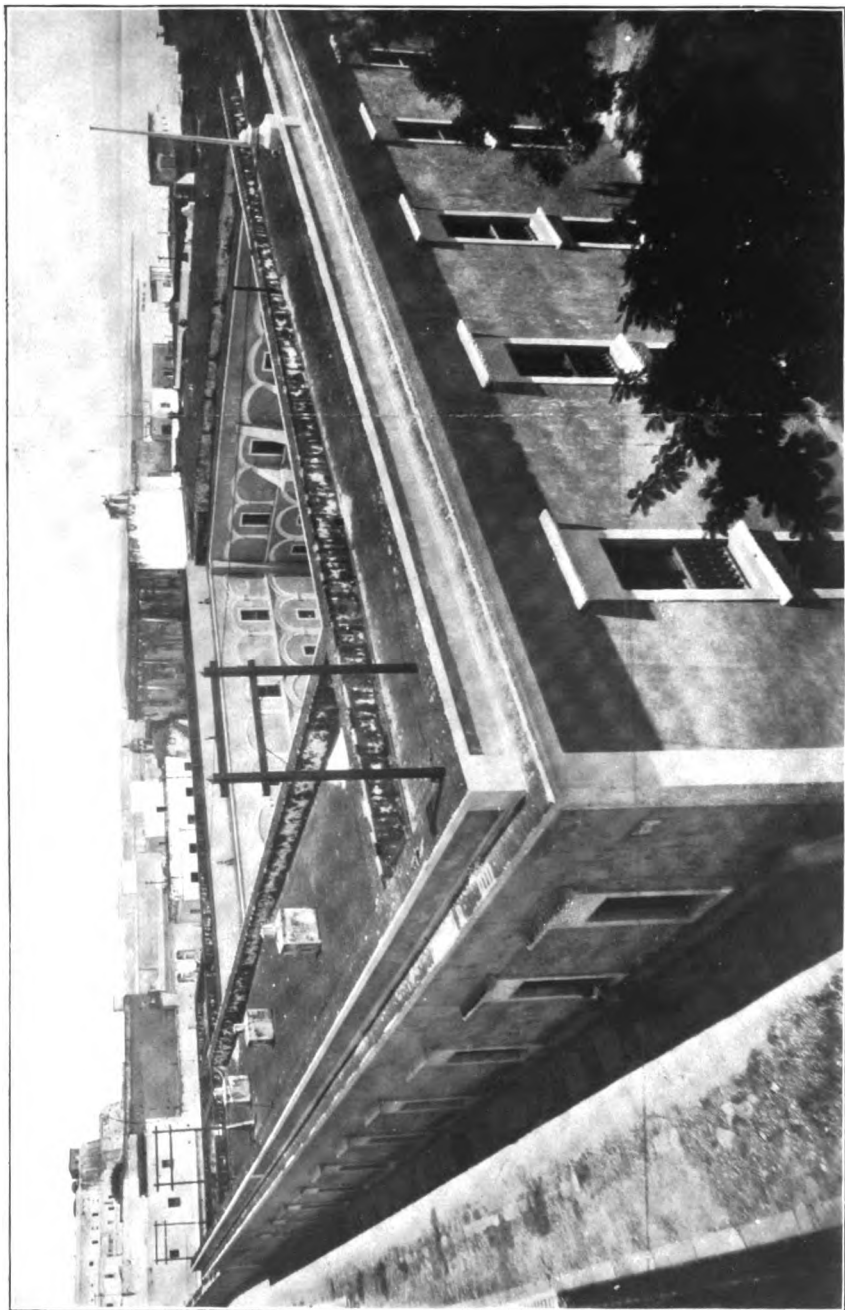
In a report submitted to me by the chief surgeon respecting the relief work specially, all details of this great undertaking are fully set forth. This will be submitted later, embraced in a presentation relating exclusively to the military government of Porto Rico in its civil aspects.

There has been no invasion of the island since the American occupation by contagious or infectious diseases, though I do not believe that this immunity of the inhabitants from yellow fever can long be secured. In times past the island has been scourged, and the last visitation was as recent as 1897, when it is stated that there were hundreds of cases in San Juan.

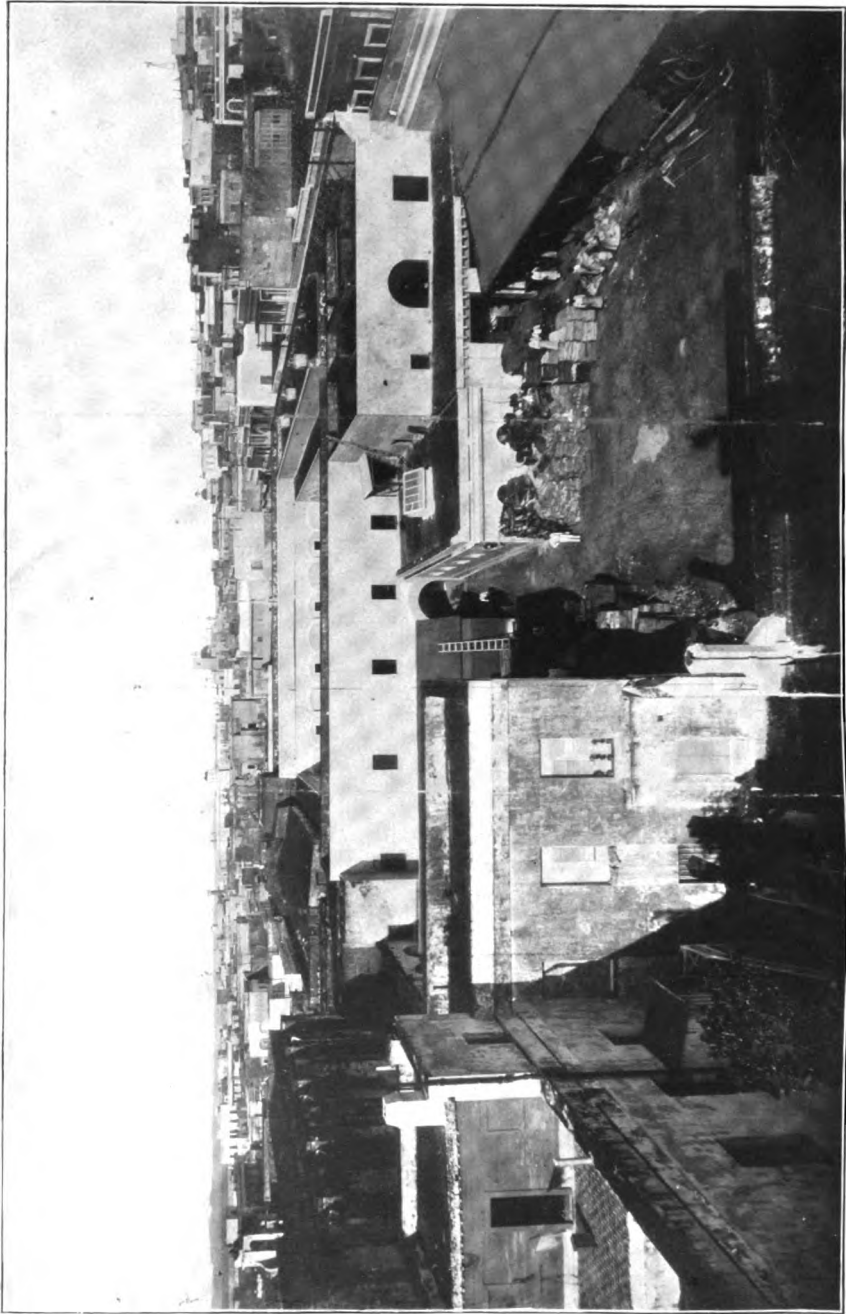
Having regard to this constant danger from yellow fever, preparations have been made for moving the troops back from the seacoast upon the first appearance of the disease in any seaport. Camp sites have been selected and camp equipment made ready.

PAY.

The chief paymaster's report shows that the funds disbursed by himself and his officers exceeded slightly \$1,000,000. There have been



QUARTERMASTER'S DEPARTMENT, SAN FRANCISCO BARRACKS, SAN JUAN, P. R. LOOKING SOUTHEAST.



QUARTERMASTER'S DEPARTMENT, SAN FRANCISCO BARRACKS, SAN JUAN, P. R. LOOKING NORTHEAST.

two paymasters in the department constantly, but hereafter one active man will be able to attend to all the work.

The troops have been promptly paid by the paymasters in person, save in a few instances where payments have been made by check sent by messenger or by express.

The Treasury Department has very recently appointed and constituted one of the local banks a depository. This fact will greatly facilitate the safe keeping of public moneys.

ENGINEERING.

This branch of the service has been a very important one during nearly the whole year. In August the engineer officer was made president of the board of public works, a civil office, and in that capacity he was the principal executive agent of the department commander in carrying forward the road work to which had been allotted some \$581,000 for all purposes connected with roads, public buildings, light-house engineering, and harbor works; and special allotments by the Secretary of War of \$950,000 additional for roads from funds which Congress had placed at the disposal of the President. As there was no organized plan for handling so vast a sum, nor sufficient organized personnel, all had to be created or procured and in preparation alone a great work was necessary.

On the 1st of May the engineer officer was relieved from so much of this burden as related to the work which was being paid for from civil revenues, but he was not relieved from responsibility connected with the work accomplished with funds allotted by the Secretary of War. This work still continues under the military supervision of the department commander and existing contracts can not be completed until about March 1 proximo.

Some progress has been made in collecting data for topographical maps of the country, but no such progress as was hoped for. The reason for this is that the officers and noncommissioned officers with the troops, who should make the reconnoissance and surveys for a progress map, have been almost unremittingly employed in connection with relief work and then elections and usual indispensable duty with troops.

The need is very great for a complete survey of the island. There has never been a survey made that responds to the requirements, and the best existing maps are known to contain certain very gross errors.

The Coast and Geodetic Survey has been at work in Porto Rico for a part of the winter, but so far none of their results have been published save two or three harbor charts.

Capt. William V. Judson has been the department engineer for just about a year. He has shown marked ability as an organizer, administrator, and as an engineer.

ARMS AND EQUIPMENT.

There is little of importance to note respecting ordnance service and operations. The depot here has been of considerable use and has adequate storage and office accommodations.

The principal functions of the employees consist in cleaning, repairing, and packing ordnance stores and property. The climate is severe on all machines, tools, and apparatus, and the rifles, carbines, pistols,

and sabers suffer much from rust. All posts save two are directly on the seacoast, so there is the added detriment of the salt air to increase tendency to oxidation of iron and steel. The constant rubbing by the soldiers removes the bluing and bronzing of rifle barrels, etc., and the rifling of small arms is to some degree injured by the constant cleaning necessary to prevent rusting.

During the year a mounted battalion of Porto Rican troops was armed and equipped from the depot.

The body of local troops known as the insular police of Porto Rico is equipped with arms belonging to the United States. The principal articles in the possession of this organization are 509 Springfield rifles and 455 Colt revolvers. A full list of the arms and equipments in possession of this local police has been forwarded with a statement of all the facts and circumstances connected with the issue of these articles. I have recommended that these arms and equipments be turned over to the government of the island and the value charged against the appropriation for arming and equipping the militia.

A report has recently been forwarded on the quantity, kind, quality, and stability of the powder that is on hand in the magazines.

In case the force of troops in the department should be largely decreased, the ordnance depot would probably be discontinued, as the necessity for it would no longer exist.

All the guns of position and their mounts are in good condition.

SIGNAL CORPS.

The work of the signal service has been confined almost exclusively to the repair, maintenance, and operation of the military telegraph.

The duty has been well done and messages have been promptly forwarded at all times save during the period following the August hurricane when every wire and about half the poles on the island were down.

The number of towns in which telegraph stations exist is 20 and there are 6 telephone stations in addition, while Vieques Island is reached by heliograph. During the year 11 telegraph offices were closed as a measure of economy.

The number of offices maintained by Spain was 33, and there has been constant complaint on the part of the people in unconnected towns because the United States has not done as well for them as Spain did.

At the beginning of the fiscal year the length of wires in use was 1,240 kilometers, while now this length has been reduced to 772 kilometers, and there are of telephone wires 178 kilometers.

Telephones are unsatisfactory because the sender of the message usually speaks no other language than Spanish while the receiver usually speaks no other than English.

During the year the number of Signal Corps soldiers has been reduced from 67 to about 40. The only officer of the corps now in the department is Major Glassford.

The enlisted men of the corps are so scattered that it has been found impracticable to subsist them in messes. Each man now receives 75 cents per day in lieu of rations, and quarters are hired for them.

After the line was destroyed in 1898 it was reconstructed by the army at military expense, and during the year the United States has expended on the installation for poles and other material over \$10,500,

and for services other than the hire of signal soldiers the sum of \$7,300. A large part of the aggregate of these two sums, which exceed \$17,800, may be considered as the investment in this Insular Telegraph by the United States during this year.

The line receipts were \$18,348. Previous to the establishment of the civil government these current receipts could be used and were used in defraying operating expenses, but upon termination of the military rule over civil affairs these current receipts were no longer available and now must be covered into the Treasury.

The signal officer states that the net cost to the United States Treasury for operating the lines for the current year was \$46,712.74, but in computing the cost he makes no allowance for cost of clothing and medicines for signal soldiers, nor has he made any allowance for forage and shoeing of animals, repairs of means of transportation, etc. If expenditures under these and other incidental heads of outlay had been included, the cost of the service would probably not fall below \$60,000 for the year. For the current year this expense will probably not exceed, say, \$40,000, unless there should be a repetition of the havoc caused last August by the tornado. I think it may be said that for the fiscal year ending last June the cost of the military telegraph service was \$6,000 per month, the tolls reimbursing the United States to the extent of about \$1,500. Army appropriation for the current year will probably be drawn on for \$40,000, and the United States Treasury (but not the army appropriation) may recoup to the extent of \$18,000—in other words, the net cost to the United States for the service in Porto Rico will be in the neighborhood of \$2,000 per month.

At the present time the wires are used without payment of tolls on messages sent on urgent official business by military commanders and staff officers, and by postal, quarantine, customs, light-house, and other United States officials, the governor of Porto Rico, and the heads of the civil departments; also the insular police have free use of the lines for transmittal of messages on official business.

I repeat former recommendations to the effect that the whole telegraph service be turned over to the civil government of the island. The original cost of the plant was paid for by the taxpayers of Porto Rico, and the Spanish representatives on the evacuation commission are recorded as having said that the telegraph belonged to the island. The civil government could either sell or lease the franchise and property upon terms that would save the Government from any outlay, and the bills for military telegraphing should not exceed \$250 per month.

In my opinion the United States would not be warranted in the retention of the line unless it should be found impossible to operate it otherwise.

The West India and Panama Cable Company have communication with Ponce on south and San Juan on north coast. Self-interest would justify and require this company to connect Ponce and San Juan by a land line were the existing service withdrawn. The French railroad is compelled by its charter to maintain telegraphic service along its lines. This company will be compelled by self-interest to close two existing gaps in the line of its rails which extends from Carolina via San Juan to Mayaguez and Ponce. This will insure the maintenance of another telegraph line traversing nearly the whole of the north, west, and southwest shores. It matters not at all to the military if any other lines are maintained. Those I have named must be main-

tained without any intervention by the army and would supply all military needs. If the civil government extended lines to other towns, that would not be a concern of the army.

TARGET PRACTICE.

The reports of Maj. S. A. Day, Fifth Artillery, artillery inspector, and First Lieut. F. Le J. Parker, Fifth Cavalry, aid-de-camp, inspector of small-arms practice, supply information respecting the instruction of troops in the use of their weapons.

The only armament available for defense of the harbors is that found in position at the date of transfer of sovereignty, and is of Spanish fabrication. The explosives available are those which have been accumulated by Spain, and some of the powder has been reported by a board of experienced artillery officers as unserviceable.

Practice was had during the year with the guns of all types and some very fair results secured, considering that the artillerists lacked some necessary appliances and were unfamiliar with the guns. Reports of this practice have been forwarded.

Efforts to carry out small-arms practice in a methodical manner have been made at all posts, but so many have been the difficulties and so constant the interruptions that, save with a few organizations, the practice has not been carried through the regular course.

The barracks occupied by the United States troops have been such as Spain provided for her army. The Spanish officers evidently considered range firing as unnecessary, as there was not a single place provided in the department where Spanish soldiers had fired at distances greater than 400 yards. At no post save San Juan was there a reservation having an area very much greater than was covered by the barracks proper. The country is densely populated, and it is difficult to secure by lease proper ranges. Target practice in Porto Rico will never be what it should be until the Government secures by purchase the needed ground for ranges.

CONCLUSION.

The important service rendered by the Army in Porto Rico was brought to a close on May 1, 1900, when, in obedience to orders and the will of Congress, the executive government of the island was delivered into the charge of the Hon. Charles H. Allen, who had been commissioned as governor of Porto Rico by the President of the United States.

The term of military occupation of the island by the United States Army may be divided into four periods, each characterized by some special feature or condition.

The first was the period of active military operations of the American Army against that of Spain. It commenced with the landing at Guanica on July 25, 1898, and ended when a knowledge of the existence of a peace protocol had been communicated to the contending armies on August 13, 1898.

The second period may be described as the time elapsed between the cessation of hostilities between the two armies, and the evacuation of the island by Spain on October 18, 1900, a period when assassination, arson, and all kinds of personal violence by natives against Spaniards

were common in many localities; when the old régime had not entirely passed nor the new been fully installed; when hostile operations continued by both the American and Spanish troops against these moving banditti, each force operating within the territory controlled by it—in fact, a period of evacuation, occupation, and transition.

The third period began on October 18, when the government of the islands and of its inhabitants was strictly military; a period when, in a technical sense, a state of war still continued, yet no opposing armies contended for mastery. This period ended on April 11, 1899, when the treaty of peace was ratified and proclaimed by the President, a date which marks the conclusion of the state of war and the resumption of peaceable relations by the United States and Spain. During this and the preceding periods the laws of the United States recognized and authorized the use of the military commission for enforcement of martial law among the civil populace as well as in the army.

The fourth period extended from the date of signing of the treaty of peace to the 1st day of May of the current year, after which date only the laws of the land could be enforced and those through civil instrumentality only.

The commander of the troops in Porto Rico was assigned to his trust by the President of the United States, and by virtue of his assignment the local commander became the personal representative of the Chief Executive, who was the Commander in Chief of the Army; and as Congress had taken no action respecting the government of Porto Rico, the supreme government of the country was lodged in the commanding general.

His duties, responsibilities, and powers were specified and limited in a very general manner in certain orders of the President, which had been communicated to the army; but those orders left to the military commander a very wide discretion, an almost complete power over executive administration and legislative matters.

The use which has been made of these powers by the army commander is now a matter of history, and the country and the world will judge whether or not military rule over this conquered territory has been wise and prudent and conducive to the best interests of the people, or the opposite.

On April 30, the machinery of civil government was in the charge of experienced public officers, and the organization, with departments, bureaus, and other branches, both insular and municipal, was such that the new government ordered by Congress to be instituted could the following day be launched and carried forward in an efficient and economic manner.

The courts of the island were all in the discharge of their proper functions. The dockets were not crowded as they were a year before. The prisons and jails were well kept and were not overflowing. The public highways were in fine condition and were being rapidly extended. The amount that could be spared from the treasury for education was being applied in such a manner as to give instruction according to modern methods to over 30,000 children. The laws of taxation had been so changed that very heavy and onerous burdens had been removed from the poor.

In office in every municipality were officers who in every instance were the choice of the electors, thus granting to municipalities almost complete autonomy.

Life and property were everywhere secure, and this without the use of troops for protection. Notwithstanding the most grievous losses suffered by the people from raids of banditti, from arson, from disturbance of trade relations, from losses of Spanish markets without corresponding gains elsewhere, from unsettled conditions resulting from the use of a currency which suffered a heavy discount when referred to a gold basis, and, finally, from the almost overwhelming disaster of August of last year, when seven-tenths of all the maturing crops were blotted out of existence—notwithstanding all these obstacles and burdens the military governor was able to turn over to the civil governor the comfortable balance in the insular treasury of over \$300,000.

As commander of the military department of Porto Rico, and the last military governor, I think I may not inappropriately say that the trust confided to the Army by the President and the people has not been abused, but instead has been wisely and justly exercised in the interest of and for the benefit of the inhabitants of this beautiful island.

The officers and men of this command have given me most loyal and able support during the year, which has been a year of severe labor and anxiety for all. The civil duties which were devolved upon the Army were strange and to many they were especially irksome. I believe that every assigned duty has been well done; that every pound of food and dollar of money committed into the hands of officers and men were correctly applied and properly accounted for to the ounce and penny, and I know that neither officer nor soldier received or asked for addition to his pay in the form of extra compensation, emolument, or allowance from the United States or insular treasury.

Very respectfully,

GEO. W. DAVIS,

Brigadier-General, U. S. Volunteers, Commanding.

**REPORT OF CAPT. ROBERT N. GETTY, FIRST U. S. INFANTRY,
COMMANDANT UNITED STATES INFANTRY AND CAVALRY
SCHOOL.**

UNITED STATES INFANTRY AND CAVALRY SCHOOL,
Fort Leavenworth, Kans., June 30, 1900.

The ADJUTANT-GENERAL UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit the following report pertaining to the United States Infantry and Cavalry School for the year ending June 30, 1900:

Capt. W. B. Reynolds, Fourteenth Infantry, was relieved as commandant July 13, 1899, by Capt. George H. Sands, Sixth Cavalry, relieved by Capt. R. B. Paddock, Sixth Cavalry, August 17, 1899, relieved by Capt. E. E. Benjamin, First Infantry, September 22, 1899, relieved by Capt. R. N. Getty, First Infantry, October 13, 1899.

The purchase of new instruments and repair of old ones in the department of engineering as recommended in report of Maj. J. A.

Augur, June 30, 1899, has been made, and instruments repaired and adjusted.

The present arrangement of the photographic branch of the department of engineering is very unsatisfactory. Part of the instruments are stored on the second floor, the dark rooms are in one end of the basement, while the blue-print room and enlarging apparatus are at the other end. Then, certain of the work is done in a small building about 70 yards from Sherman Hall. Due to a large addition to the main building, the present blue-print room is so placed that the frame can be exposed to the sun's rays for only a few hours in the afternoon. The entire building has been gone over with a view to changing the location of this apparatus, but there is no place except the attic, which is not at all suitable and would require almost as much money in fitting up as would be needed in building a new house.

This branch of engineering is of great importance in the school, and with the present arrangement the instructors will be seriously hampered and unable to procure the best results.

The report of the secretary includes a sketch of a photographic studio which would fully answer the needs of the institution. It has been gone over carefully by the secretary and the photographer of the school. As it conforms to the available ground, the apparatus on hand, and the requirements of the school, it is recommended that it be placed with as little change as possible from the plan submitted.

The following defects are noted in Sherman Hall and should be remedied if a larger class for the school is contemplated:

Library.—Shelves getting overcrowded. Two new stacks would ease matters for a year or so; afterwards same condition would exist.

Lecture room.—View of rostrum and blackboard obstructed by a row of pillars down center of room.

Drafting room.—Cramped quarters. In overlooking work when whole class (of 45) is drawing in this room, instructors have to move edgewise among the tables. Room for this work should have floor space enough to accommodate whole class—ample room for each student and for instructors to circulate among the tables. Light comes from only two directions—5 windows in the east and 2 in the south. Students placed on west side or in northwest corner usually elect to carry their drawing materials into lecture room, so as to be nearer windows. This involves duplicating instructions written on blackboard or given orally, which is inconvenient for the instructor and requires care that the two sets of instructions shall be identical. The curriculum imposes enough wear on the eyes of those undergoing the course, and the drafting room should be the best lighted room in the building.

The conversion of the school building from its present T shape into the form of an H would give the architect an opportunity to design a lecture room having a clear field of view from all points and with permanent seats and desks arranged on a theatrical plan. The present lecture and drawing rooms are used for examinations, but the above arrangement would serve much better.

On the west end could be placed a drafting room, getting light from three sides, and of dimensions commensurate with the size of any class that will ever be sent here.

On the floor above could be placed the photographic studio proposed elsewhere.

The recommendation of the secretary to purchase more type for the purpose of printing a library catalogue is concurred in, and also the employment of a civilian printer.

The recommendation that the compensation of the assistant to the secretary (Alfred Robertson) be increased to \$1,200 per annum is renewed.

Very respectfully,

ROBERT N. GETTY,
*Captain, First Infantry,
 Commandant United States Infantry and Cavalry School.*

UNITED STATES INFANTRY AND CAVALRY SCHOOL,
 Fort Leavenworth, Kans., June 30, 1900.

The COMMANDANT UNITED STATES INFANTRY AND CAVALRY SCHOOL,
 Fort Leavenworth, Kans.

SIR: I have the honor to submit herewith my report as secretary and disbursing officer of the United States Infantry and Cavalry School for the fiscal year ending June 30, 1900.

During the past year the following changes have been made in the personnel:

	From—	To—
Maj. J. A. Augur, Fourth Cavalry, commandant.....		June 29, 1899
Capt. W. B. Reynolds, Fourteenth Infantry, commandant.....	June 29, 1899	July 13, 1899
Capt. G. H. Sands, Sixth Cavalry, commandant.....	July 13, 1899	Aug. 17, 1899
Capt. E. B. Paddock, Sixth Cavalry, commandant.....	Aug. 17, 1899	Sept. 22, 1899
Capt. E. E. Benjamin, First Infantry, commandant.....	Sept. 22, 1899	Oct. 13, 1899
Capt. Robert W. Getty, First Infantry, commandant.....	Oct. 13, 1899	
Capt. W. B. Reynolds, Fourteenth Infantry, secretary.....		June 30, 1899
First Lieut. G. C. Barnhardt, Sixth Cavalry, secretary.....	June 30, 1899	June 19, 1900
First Lieut. J. N. Pickering, First Infantry, secretary.....	June 19, 1900	

During the year 212 works have been purchased for the library, a number of books and pamphlets have been bound or rebound, and most of the unmounted maps on hand have been mounted on linen.

A card-index outfit has been purchased and the work of card indexing the books on hand commenced. When this work is completed the library will be able to issue a printed catalogue of real value to borrowers.

A supply of new instruments has been added to the department of engineering, and there are now on hand sufficient of the instruments generally issued to students to equip a class of 60. A supply of drawing material has also been purchased for this department.

Most of the old-fashioned type formerly on hand was useless for school purposes. It has been condemned and replaced to a considerable extent by new type, but more type must be purchased before the printing office can undertake a large job, such as the printing of a library catalogue.

The arrangements for heating the school are very unsatisfactory. In cold weather the building is kept warmer when supplied with steam from the boiler in the quartermaster's shops, over 70 yards in rear of the school, than when heated by the boiler in Sherman Hall. It has been found necessary for the comfort of instructors to place stoves in their offices; otherwise the rooms would be untenable. The same has not been done in the section rooms, but, nevertheless, during the winter months when classes are assembled complaints are of daily occurrence. This condition of affairs will have to be remedied sooner or later, and the matter should not be left until the arrival of another class before it is attended to.

At present the building is lighted with oil lamps, of which there are a large number scattered about the building. It is recommended that power be provided by which the printing presses and an electrical plant could be run and that the building be wired for electric lighting. This would require one 20-horsepower engine, one 35-horsepower boiler, one 3-horsepower electric motor, one 150-light dynamo, one switchboard, building wired for about 125 lights.

It is estimated that the cost of labor and materials for the above would amount to \$1,525.

The printing office should be removed to the basement, far enough away from the section rooms to prevent the noise of printing presses and stapling machines being a distraction to occupants of section rooms during recitations. At present the basement is insufficiently lighted to permit of its being used as a printing office, but the windows could easily be enlarged and a few 16-candlepower lamps would supply any deficiency. The removal of the printing office would vacate a room admirably adapted for section-room purposes or the storage of the many instruments on hand in the department of engineering.

Proper accommodations for the photographic branch of the department of engineering should be made, as work in the different processes requires under present arrangements that students travel all over the basement, sometimes to the second floor, and often to the studio, 50 yards away from the school. It is suggested that a photographic studio be built in rear of the school (see plans herewith). The enlarging camera and blue-print frame each require a separate room, and the copying studio requires special arrangements in lighting which can not be had in the present studio—a "studio" only in name. The installment of the electrical plant referred to above would permit photographic work to be carried on regardless of weather conditions. The matter of the employment of a civilian printer is again urged, as it is impossible to get efficient enlisted men from the garrison. The last "printer" employed did not know how type was distributed in the cases.

The allotment for the fiscal year 1900 has been expended as follows:

Stationery, office supplies and material, and card-index outfit.....	\$194.50
Library:	
Purchase of books.....	\$719.99
Subscriptions to periodicals, binding, and material for map mounting.....	154.07
	<hr/>
	874.06
Engineering instruments and materials	895.49
Printing office:	
Materials	520.95
Labor	15.00
	<hr/>
	535.95
<hr/>	
Total.....	2,500.00

Very respectfully,

J. N. PICKERING,
*First Lieutenant, First Infantry,
 Secretary United States Infantry and Cavalry School.*

REPORT OF LIEUT. COL. GEORGE B. RODNEY, COMMANDANT CAVALRY AND LIGHT ARTILLERY SCHOOL.

CAVALRY AND LIGHT ARTILLERY SCHOOL,
Fort Riley, Kans., November 12, 1900.

The ADJUTANT-GENERAL, UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to submit the following report in compliance with paragraph 10, School Regulations, and telegraphic instructions from the Adjutant-General of the Army:

Due to the frequent changes in the cavalry garrison of this post, the scheme of instruction for the Cavalry and Light Artillery School as given in General Orders, No. 6, 1896, Headquarters of the Army, could not be followed, but the course of instruction conformed as fully as possible to General Orders, No. 3, Headquarters Department of the Missouri, 1899, and General Orders, No. 18, Headquarters Department of the Missouri, 1899; also General Orders, No. 8, Headquarters Department of the Missouri, and General Orders, No. 19, Headquarters Department of the Missouri, 1900.

Monthly reports of this instruction and the deviation from the course prescribed, with reasons therefor, were submitted to the adjutant-general, Department of the Missouri. No combined exercises were conducted on account of the lack of cavalry troops as shown by the following:

PRESENT FOR DUTY JUNE 30, 1899.

Organizations.—Field, staff, and band, Sixth Cavalry, 25 enlisted men; Troop A, Sixth Cavalry, 40 enlisted men; Troop E, Sixth Cavalry, 39 enlisted men; Troop G, Sixth Cavalry, 32 enlisted men; Troop H, Sixth Cavalry, 36 enlisted men.

Officers.—Maj. Thomas C. Lebo, Sixth Cavalry; Capt. W. W. Forsyth, quartermaster, Sixth Cavalry; Capt. M. F. Steele, adjutant, Sixth Cavalry; Lieut. F. C. Marshall, squadron adjutant, Sixth Cavalry; Capt. H. P. Kingsbury, Sixth Cavalry; Capt. Frank West, Sixth Cavalry; Capt. L. A. Craig, Sixth Cavalry; Capt. B. H. Cheever, Sixth Cavalry; First Lieut. J. P. Ryan, Sixth Cavalry; First Lieut. J. W. Furlong, Sixth Cavalry; Second Lieut. J. F. McKinley, Sixth Cavalry; Second Lieut. Stuart Heintzelman, Sixth Cavalry.

GAIN.

Organizations.—Troop A, Eighth Cavalry, 25 enlisted men; Troop B, Eighth Cavalry, 27 enlisted men; Troop C, Eighth Cavalry, 31 enlisted men; Troop D, Eighth Cavalry, 25 enlisted men; all on January 26, 1900.

Officers.—Lieut. Col. T. J. Wint, Sixth Cavalry, September 20, 1899; Maj. William Stanton, Eighth Cavalry, January 26, 1900; First Lieut. T. Q. Donaldson, jr., squadron adjutant, Eighth Cavalry, January 26, 1900; Capt. C. M. O'Connor, Eighth Cavalry, January 26, 1900; First Lieut. C. W. Farber, Eighth Cavalry, January 26, 1900; First Lieut. H. B. Dixon, Eighth Cavalry, January 26, 1900; Second Lieut. A. G. Lott, Eighth Cavalry, January 26, 1900; Second Lieut. George Williams, Eighth Cavalry, January 26, 1900; Capt. Farrand Sayre, Eighth Cavalry, February 10, 1900; Second Lieut. E. R. Heiberg, Sixth Cavalry, May 10, 1900.

LOSS.

Organizations.—Troop E, Sixth Cavalry, July 2, 1899; Troop H, Sixth Cavalry, July 2, 1899; Troop G, Sixth Cavalry, August 28, 1899; Troop A, Eighth Cavalry, June 14, 1900; Troop C, Eighth Cavalry, June 14, 1900; field, staff, and band, Sixth Cavalry, June 20, 1900; Troop A, Sixth Cavalry, June 20, 1900.

Officers.—Capt. L. A. Craig, Sixth Cavalry, July 2, 1899; Capt. B. H. Cheever, Sixth Cavalry, July 2, 1899; First Lieut. J. P. Ryan, Sixth Cavalry, July 2, 1899; Second Lieut. Stuart Heintzelman, Sixth Cavalry, July 2, 1899; Capt. M. F. Steele, Sixth Cavalry, July 14, 1899; Capt. Frank West, Sixth Cavalry, August 28, 1899; Maj. Thomas C. Lebo, Sixth Cavalry, September 21, 1899; Second Lieut. J. F. McKinley, Sixth Cavalry, November 11, 1899; Capt. H. P. Kingsbury, Sixth Cavalry, November 21, 1899; Second Lieut. George Williams, Eighth Cavalry, March 3, 1900; First Lieut. H. B. Dixon, June 1, 1900; Capt. Farrand Sayre, Eighth Cavalry, June 1, 1900; First Lieut. F. C. Marshall, Sixth Cavalry, June 18, 1900; Lieut. Col. T. J. Wint, Sixth Cavalry, June 20, 1900; Capt. W. W. Forsyth, Sixth Cavalry, June 20, 1900; First Lieut. John W. Furlong, June 20, 1900; First Lieut. E. R. Heiberg, June 20, 1900.

The departure of three troops of the Sixth Cavalry in July and August, 1899, left the cavalry post with insufficient men to take charge of the post, and patrols were furnished by the Light Artillery Battalion to assist in performing the guard duty.

The squadron of the Eighth Cavalry arrived January 26, 1900, with troops having about one-fourth their authorized enlisted strength and without horses. These troops were rapidly recruited to 100 men each, and they were instructed progressively and thoroughly dismounted. The months of April and May were devoted to target practice, and June to dismounted drills, "school of the troop," and such theoretical instruction as could be given in the mounted duties of a cavalry soldier. June 30, 1900, B Troop, Eighth Cavalry, had received only 7 horses and D Troop, Eighth Cavalry, only 6. The instruction of A Troop, Sixth Cavalry, conformed with the provisions of the General Orders, Headquarters Department of the Missouri, above referred to.

May 29, 1900, a detachment of recruits of the Eighth Cavalry was organized, and its instruction has been conducted progressively, dismounted, and continued as rapidly and as thoroughly as possible with the limited number of officers under my command.

Troops A and C, Eighth Cavalry, left the post for station at Forts Reno and Sill, respectively, June 14, 1900, and on June 20, 1900, the field, staff, and band, and Troop A, Sixth Cavalry, left this post for San Francisco, Cal., en route for China.

Troops B and D, Eighth Cavalry, received their authorized number of horses during July and August, which months were devoted to training horses and men, "school of the trooper." In September the drill was in "school of the troop," including advance and rear guard and outpost duty.

By authority of the department commander, target practice with pistol was held by these troops during October.

Post lyceum work was conducted during the winter 1899-1900, according to the provisions of department orders quoted above, a scheme for which was submitted to and approved by the department commander.

A series of lectures and theoretical and practical instruction in horseshoeing was given by the chief farrier to the farriers and blacksmiths.

Attention is respectfully invited to the report of the commander of the Light Artillery Battalion herewith inclosed, marked "A," also to the financial statement of the school secretary for the fiscal year ending June 30, 1900, attached and marked "B."

In order to complete the post as contemplated, the recommendations of Col. A. K. Arnold, First Cavalry, in his annual report of 1897, for the building of barracks and quarters in both cavalry and artillery subposts, are respectfully renewed.

I would respectfully recommend that kitchens be added to the cavalry barracks for the following reasons:

First. The conditions of the general mess at this post are so different from those of a troop mess in garrison and in the field that officers, noncommissioned officers, and men can not get the training contemplated in paragraphs 280-286 of Army Regulations. This training is most essential to the organizations at this post which are composed almost entirely of recruits.

Second. The method of steam cooking provided for and necessary to cook the large quantities of food required by the general mess at this post does not produce food so appetizing as that cooked in smaller quantities by the company cook over a range or camp fire, and the food can not be served so warm as in smaller quantities to a lesser number.

Third. There is no economy of labor. The help comes from different organizations and there is an entire lack of interest except what is enforced. The feeling of all enlisted men for the general mess is entirely different from that toward their own company mess, which is akin to that toward their own home kitchen and dining room.

All of these conditions have been especially noticed by me during the past year, for the reason that there have been such frequent changes in the number of organizations eating at the general mess and because during the past year three different regiments have been represented in this general mess.

Kitchens and dining rooms could be added to the cavalry barracks at small expense commensurate with the advantages that could be derived therefrom. Providing this is done, I would respectfully recommend that the general mess building at this post be used as a gymnasium, dance hall, and library for the enlisted men of the post.

Very respectfully,

GEO. B. RODNEY,
Lieutenant-Colonel Fourth Artillery, Commanding.

APPENDIX A.

LIGHT ARTILLERY BATTALION,

Fort Riley, Kans., November 12, 1900.

THE SECRETARY U. S. CAVALRY AND LIGHT ARTILLERY SCHOOL,

Fort Riley, Kans.

SIR: Pursuant to General Orders, No. 6, 1896, Headquarters of the Army, I have the honor to submit the following annual report of the subschool for the artillery battalion at this post including the period from September 1, 1899, to date:

ORGANIZATIONS.

Light Battery F, Third Artillery; Light Battery B, Fourth Artillery; Siege Battery O, Seventh Artillery, arrived at post April 13, departed August 6, returned October 9, 1900.

OFFICERS.

Present for duty.—Lieut. Col. George B. Rodney, Fourth Artillery, commanding light artillery battalion and post; First Lieut. L. S. Lyon, Second Artillery, adjutant and ordnance officer; Capt. R. D. Potts, Third Artillery, commanding Light Battery G; Capt. H. R. Anderson, Fourth Artillery, commanding Light Battery B; Capt. J. R. Williams, Seventh Artillery, commanding Siege Battery O; First Lieut. C. C. Hearn, Seventh Artillery; First Lieut. W. S. Guignard, Fourth Artillery; First Lieut. A. Moses, Third Artillery; First Lieut. P. R. Ward, Sixth Artillery, attached to Siege Battery O, Seventh Artillery, for duty; Second Lieut. H. W. Butner, Third Artillery; Second Lieut. H. B. Black, Fourth Artillery.

GAIN.

First Lieut. LeRoy S. Lyon, Second Artillery, May 18, 1900; Capt. J. R. Williams, Seventh Artillery, April 13, 1900; First Lieut. C. C. Hearn, Seventh Artillery, April 13, 1900; First Lieut. A. Moses, Third Artillery, December 21, 1899; First Lieut. P. R. Ward, Sixth Artillery, April 13, 1900.

LOSS.

First Lieut. G. G. Heiner, Fourth Artillery, June 1, 1900; First Lieut. D. Skerrett, Third Artillery, December 29, 1899; First Lieut. E. P. O'Hern, Third Artillery, November 17, 1899.

THEORETICAL AND PRACTICAL INSTRUCTION.

From September 1, 1899, to January 1, 1900.—During this period and on account of the depletion of the cavalry garrison, the light batteries furnished details for nearly all the guards and other duties for both subposts. Target practice was held and instruction in drill regulations and field exercises given. Officers received theoretical instruction by discussion of military subjects during the lyceum course, noncommissioned officers in the noncommissioned officers' school.

From January 1, 1900, to March 31, 1900.—Theoretical—post lyceum and noncommissioned officers' school; practical—drill, road marches, and other field exercises.

From April 1, 1900, to November 10, 1900.—Instruction, both theoretical and practical, and target practice were in compliance with the following orders and memoranda:

MEMORANDUM ORDER.

LIGHT ARTILLERY BATTALION, *March 28, 1900.*

The following progressive scheme for carrying out the provisions of General Orders, No. 8, current series, Department of the Missouri, and General Orders, No. 53, Adjutant-General's Office, 1896, having been approved by the department commander, is published for the instruction of all concerned. In this connection the provisions of General Orders, No. 8, current series, Department of the Missouri, will be carefully noted and complied with.

From April 1 to May 31.—Team drill, section, platoon, and battery drill. A portion of the time in these drills to be devoted to preliminary training, as required by Artillery Memorandum, No. 2, Adjutant-General's Office, 1896. One practice in field exercises each week.

From June 1 to July 31.—Battery drill, battalion drill, and elementary target practice as prescribed in Artillery Memorandum No. 2, Adjutant-General's Office, 1898. Field exercises once per week.

From August 1 to September 30.—Battery drill and battery service target practice with such other drills as may be necessary. Field exercises once per week.

From October 1 to 31.—Battalion target practice, with such other drills as may be necessary.

From November 1 to 30.—If practicable, combined maneuvers with cavalry.

Field exercises with light artillery will comprise the following: Construction of gun pits; passage of streams; marches, experimental, forced, of concentration; construction of temporary bridges; reconnoissance with view of ascertaining practicability of roads and fords for artillery; loading and unloading batteries on railroad cars; making and breaking shelter-tent camp; use of individual mess kit; and such other exercises as may be designated from time to time.

Litter bearer drill and signal drill as required by orders and regulations.

During April and May one-half hour each day devoted to calisthenic drill.

By order of Lieutenant-Colonel Rodney:

GORDON G. HEINER,

First Lieutenant Fourth Artillery, Acting Adjutant.

[Order No. 9.]

LIGHT ARTILLERY BATTALION,

Fort Riley, Kans., April 16, 1900.

In order to secure uniformity of action the following progressive scheme for carrying out the requirements of Artillery Memorandum Circular No. 2, Adjutant-General's Office, 1898, is published for the information and guidance of all concerned.

1.—*Preparatory training until May 31.*

Batteries are to be exercised in the whole system of fire discipline, as a drill, and everyone so instructed as to be thoroughly conversant with the correct performance of their definite duties in all positions in which a battery is likely to be placed in active service. This includes:

Instruction of platoon commanders: As to their responsibility and supervision. The acknowledgment of the receipt of all orders relative to ammunition, elevation, and fuses. The examination of their gunners and fuse setters, and the principles of ranging.

Instruction of gunners: In aiming or laying at service objects at service ranges. Drilled both as gunners and fuse setters, and worked against time in examination tests. To follow up every alteration in elevation ordered by battery commander. Instructed in elevation by quadrant and indirect laying.

Instruction of cannoneers: Nos. 3 and 5 to lay for direction from end of trail hand-spike. A certain number to be instructed so as to qualify as fuse setters. Prompt and orderly performance of all duties to be exacted.

Casualties are to be frequently practiced at drill, so that it may be known who is to take any position vacated.

The principles laid down under caption "Artillery in the field," Artillery Drill Regulations, are to be practiced.

After instruction of gunners and fuse setters they are to be examined for qualification in the manner indicated on pp. 12 and 13 of the Memorandum.

The number of men, including chiefs of section, qualified both as gunners and fuse setters, should be 24 in a six-gun battery.

2.—*Elementary practice, from June 1 to July 31.*

This practice is in the hands of the battery commander and he is not to concern himself with petty details, all of which should have been seen to in the preparatory training. This practice will be:

I. For accuracy-firing at each of two known distances, about 1,700 and 2,500 yards. Target, the standard 20 by 10. Two sighting shots allowed each gunner. Allowance of ammunition, 72 percussion shell.

II. To range and find length of fuse (Object: Practice of fire discipline, observation and regulation of fire, and instruction of officers). Both stationary and moving targets will be used. No assistance to be given by range party near target. No

change of target until correctly ranged, and three effective shrapnel with same length of fuse obtained. When this is the case the battery commander will cease firing and call upon the range party for the effect of his fire. Four ranges from 1,200 to 3,500 yards will be employed. Allowance of ammunition, 28 shell, 24 shrapnel.

III. For effect with ammunition limit. A series of about 2,500 yards after range is adjusted. Allowance of ammunition, 10 shrapnel and about 10 shell for adjusting range.

IV. For effect with time limit. Series beyond 1,700 yards with about six minutes' time. Allowance of ammunition, about 12 shrapnel and 10 shell for adjusting range.

3.—*Battery service practice, from August 1 to September 30.*

In this practice a large, irregular ground will be selected and targets arranged to represent phases of attack and defense.

The battery to range and fire on enemy's guns. Change and repel attack of infantry, or similar operations.

Targets: Battery of artillery in action (if practicable); company of infantry, 48 dummies in line, single rank; company of infantry, 48 dummies in column of fours; company of infantry, kneeling figures in attack formation, or similar ones.

Allowance of ammunition, 250 shell, 60 shrapnel.

4.—*Battalion practice, from October 1 to 31.*

This practice is similar to the battery service practice. The batteries will be halted in rear of a position, the battery commanders called up, and the target pointed out. The batteries will prepare for action and the practice conducted as near actual service conditions as practicable. Allowance of ammunition, 80 shell, 40 shrapnel.

In all firing a range party of sufficient strength, according to targets, will be detailed under charge of an officer, and precautions as to safety, danger flags, signals, etc., also judging and recording results of fire, will be as indicated under "Remarks," pp. 25, 26, 27, of the Memorandum.

Practice records and reports will be made on the usual forms.

By order of Lieutenant-Colonel Rodney:

GORDON G. HEINER,
First Lieutenant Fourth Artillery, Acting Adjutant.

[Orders No. 13.]

LIGHT ARTILLERY BATTALION, *Fort Riley, Kans., May 2, 1900.*

The following field exercise for light batteries F, Third Artillery, and B, Fourth Artillery, will be carried out during the month:

First week—Practice march.

Second week—Construction of Austrian gun pit. All of the guns of the batteries will be covered. Battery commanders will select the ground for their batteries in the execution of this exercise, not, however, where drills are regularly conducted. Time of construction to be taken.

Third week—Construction of German gun pit under same conditions as exercise for second week.

Fourth week—March of concentration on May 24. Conditions: (1) A force represented by light battery F, Third Artillery, camped at the bridge across Republican River, at the end of Washington street, Junction City, on the night of May 23. (2) A force represented by light battery B, Fourth Artillery, camped at the Estes gate, night of the 23d. Required: Both batteries to park at their gun sheds at 11.30 a. m. Batteries will break park on the morning of May 24 in time to enable them to be at the supposed camp position by 9 a. m.

Field exercise for siege battery O, Seventh Artillery, one each week during the month, will be confined to experimental marches; the first one to be about 6 miles going and returning; the second about 8 miles; the third about 10 miles; the fourth about 12 miles.

By order of Lieutenant-Colonel Rodney:

GORDON G. HEINER,
First Lieutenant Fourth Artillery, Acting Adjutant.

[Memorandum.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., June 1, 1900.

Progressive scheme of instruction, drill and target practice for siege battery O, Seventh Artillery:

I. *June 1 to June 30, inclusive.*—Preparatory training—

1. Fire discipline, including (a) Instruction of officers in all their duties and responsibilities. (b) Instruction of noncommissioned officers and gunners; laying, direct, indirect, reverse; fuse cutting, range tables; use of meteorological instruments and tables; simple electrical apparatus and batteries. (c) Instruction of cannoneers; manual of the gun, platform laying, installation of pieces in emplacements; construction of gabions, fascines, mechanical maneuvers. (d) Observation of fire. (1) Ordinary. (2) Exact, including instruction in establishment of base-line and angle-measuring instruments; plotting range finding.

2. Mounted drill.

3. Preliminary instruction small-arm firing regulations (rifle and revolver).

4. Field exercise at least once per week.

II. *July 1 to July 31.*—Small arms target practice up to and including 300 yards, until completed, when scheme for June will be resumed, excepting (3); signal drill; field exercise once per week.

III. *August 1 to September 30.*—Elementary target practice; mounted and dismounted drill at guns; signal drills during August; field exercises once per week.

IV. *October 1 to October 31.*—Service practice; mounted and dismounted drill at guns; field exercise once per week.

V. *November 1 to November 30.*—Mounted and dismounted drill at guns; such combined maneuvers with cavalry and light artillery as are practicable.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Orders No. 17.]

LIGHT ARTILLERY BATTALION,
*Fort Riley, Kans., June 1, 1900.**Field exercise and drill for June.*

A.—LIGHT ARTILLERY.

I. *Field exercise.*—The following field exercise for light batteries F, Third, and B, Fourth Artillery, will be carried out during the month of June: Thursday, 7: Construction of French gun pit. Battery commanders will select the ground for their batteries in the execution of this exercise, not, however, where drills are regularly conducted. Time of construction to be taken. All of the guns to be covered. Thursday, 14: Practice march. Thursday, 21: English gun pit. Thursday, 28: March of concentration.

Conditions: (1) A force represented by Light Battery B, Fourth Artillery, camped at the bridge crossing the Republican at the end of Washington street, Junction City, on the night of June 27. (2) A force represented by Light Battery F, Third Artillery, camped in town of Ogdensburg night of June 27. Required: Both batteries to park at their gun sheds at 10.30 a. m. Batteries will break park on the morning of June 28 in time to enable them to be at the supposed camp positions by 9.30 a. m.

II. *Drill.*—Friday of each week, battalion drill. Monday, Tuesday, and Wednesday of each week, elementary target practice of battery drill in compliance with Orders No. 9, Artillery Battalion, April 16, 1900, and Memorandum Orders, March 28, 1900.

B.—SIEGE ARTILLERY.

I. *Field exercises.*—Construction of sunken 4-gun siege battery substantially as prescribed in English Drill Book, page 27, with such modification as may be found necessary for adaption to 7-inch B. L. howitzer. Copy of drill book can be obtained at this office.

A drawing to scale will be submitted to this office after the completion of the battery.

Timely requisition will be made for such material and implements as may be furnished by the post quartermaster.

On or before June 4 the battery commander will select suitable ground in the immediate vicinity of the artillery post, reporting his selection to this office before commencing work.

Not less than two and a half hours Thursday and Friday morning of each week will be devoted to this work. One hour horse exercise under command of one officer the morning of these days.

II. Drill.—8.30 to 9.30 a. m. Monday, Tuesday, and Wednesday of each week:

A. Mounted battery drill for instruction of drivers and training of horses.

B. Dismounted drill, manual of arms, preliminary instruction small arms and firing regulations (rifle and revolver).

9.30 to 11 a. m. Monday, Tuesday, and Wednesday of each week:

Dismounted drill and instruction at the guns, as prescribed in memorandum June 1, 1900, "Progressive scheme of instruction for siege battery."

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,

First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 7.]

ARTILLERY BATTALION,

Fort Riley, Kans., July 1, 1900.

Field exercises, drills, and target practice for July 1, 1900, under provisions of Memorandum Order, March 28, 1900.

Light artillery, field exercises.—Thursday, July 5, reconnoissance in vicinity of post with view to ascertain practicability of passage of streams by fords, and of ravines by temporary bridges, with report of fords and ravines selected. Thursday, July 12, passage of streams by fords. Thursday, July 19, construction of practicable, temporary bridges across ravines selected and passage of same. Thursday, July 26, loading and unloading of batteries on railroad cars on plan of same on ground. Friday of each week, battalion drill. Target practice or battery drill Monday, Tuesday, and Wednesday of each week as hereinbefore prescribed. Siege battery. Small-arm target practice until completed. (See memorandum June 1, 1900.)

By order of Lieutenant-Colonel Rodney.

LEROY S. LYON,

First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 9.]

LIGHT ARTILLERY BATTALION,

Fort Riley, Kans., August 5, 1900.

The battery-service practice prescribed by Order No. 9, April 16, this office, will comprise the execution of the following problems, commencing Tuesday, August 7, 1900, with Problem I, by Light Battery F, Third Artillery. The practice will take place every day until completed, the batteries alternating.

First call, 6.30 a. m.; assembly, 7 a. m.

Problem I.—To change position to repel infantry advancing on another part of the field. Extent of movement about 1 mile at trot, 10 shells to be fired at first target, 20 at second. Time allowance from unlimbering in first position to last shot of whole series, 35 minutes. Ammunition allowance of 30 shells. Range (unknown), about 1,700 yards. Targets, standard 10 by 20.

Problem II.—To select firing position within given area and fire 14 shell at each of three different targets from the same firing position in twenty-one minutes. Ammunition allowance, 42 shell. Ranges (unknown), from 2,000 to 3,000 yards. Targets, standard 10 by 20.

Problem III.—The battery to advance a mile at a trot, halting three times within that distance and firing 10 shell at each halt at a designated target, then to retire at a walk about $1\frac{1}{2}$ miles, firing the same number of shell at the same three targets. Ranges, from 1,700 to 3,000 yards. Time allowance, one and one-half hours. Ammunition allowance, 60 shell. Targets, standard 10 by 20.

Problem IV.—To gallop (at the rate of 12 miles per hour) to three positions about 1 mile apart, firing 25 shell from each of the three positions at a corresponding target.

Line of targets approximately parallel to the line of advance of the battery. Time limit for completion of whole series, one and one-half hours. Ammunition allowance, 75 shell. Ranges (unknown), from 1,500 to 3,000 yards.

Problem V.—To advance to a range of about 1,500 yards at a trot and open fire on infantry who are assumed to be advancing over second zone, supports being 200 yards in the rear. Target B. Time allowance, ten minutes. Ammunition allowance, 3 shell and 20 shrapnel.

Problem VI.—Attack of a company of infantry in column of fours, double rank, facing battery. Target C. Range at least 3,000 yards. Time allowance, ten minutes. Ammunition allowance, 3 shell and 20 shrapnel.

Problem VII.—Attack of line of infantry kneeling. Target E. Range about 1,700 yards. Time allowance, ten minutes. Ammunition allowance, 3 shell and 20 shrapnel.

Problem VIII.—Bombardment of a position represented by standard targets. Deliberate fire. Range at least 4,500 yards. Breadth of target, 40 feet; depth, 200 yards. Ammunition allowance, 34 shell.

Remarks.—Method of ranging will be both by range finder and trial shots. Records and reports will be made in compliance with Artillery Memorandum No. 2, Adjutant-General's Office, June 7, 1898.

Range parties under the command of an officer will be detailed from this office. The officer detailed will supervise the location of targets and see that they are in good condition the day preceding the execution of the problem. Order of fire will be by piece, so that each shot recorded by the range party can be referred to the gun firing it by comparing battery and range party records for the day.

The firing will be divided equally between the lieutenants present for duty with the batteries. It must be borne in mind that the adjustment of sights and laying of guns pertain exclusively to the gunners, and while it is the duty of the instructors to assure themselves that the prescribed elevations are given and that the guns are properly loaded and pointed, under no circumstances will officers do more than see that required corrections are made by the gunners.

This scheme of service practice will be subject only to such modifications as may be found necessary or advisable by the commanding officer during its execution.

By order of Lieutenant Colonel Rodney:

LEROY S. LYON,

First Lieutenant Second Artillery, Adjutant.

[Memorandum.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., August 6, 1900.

DETAILED INSTRUCTIONS FOR BATTERY COMMANDERS AND RANGE PARTIES.

I. *Detail for range parties.*—An officer and 5 men mounted and 1 driver for wagon will be detailed daily (Saturdays excepted) by the battery commander firing, to report to the adjutant on the field immediately after the completion of the firing of the day. This party will repair and locate targets the morning detailed, and also act as range party the morning following.

II. *Instructions for range officers.*—On the day of the practice the range officer will report with four mounted men and wagon containing target materials, etc., at the targets not later than 7.30 a. m. Two mounted men will be located far out on flanks to signal danger; two will assist range officer marking and recording, and one mounted man will report to the adjutant at his quarters at 7 a. m. A wagon will be in readiness at the quartermaster's corral at 6.30 a. m. daily.

III. *Daily memorandum.*—All the shots allowed for a problem will be recorded, both by the battery commander and range officer in the order fired (1, 2, 3, 4, etc.) so that any shot on any target can be referred to the gun firing it. The range officer will also record estimated distances "short" or "over," "height of burst," the number of hits by whole projectiles, and by fragments or bullets on each target, and general condition of targets will be reported after the day's problem is completed.

Targets will be numbered from right to left looking from firing position. To assist judgment at targets the range officer will locate poles at points 50-100 yards front and rear of all targets. Targets will not be examined by range officer until the completion of the firing for the day.

All reports will be made on the blanks prescribed by Artillery Memorandum No. 2, 1898, and officers will provide same for themselves until a supply is received at this office.

IV. *Position of range party.*—The range officer's party will be on a line at right angles to the plane of firing at the targets and at least 500 yards therefrom.

The firing will invariably commence on the right target (looking from firing position) and proceed in order to the left. Range parties will move in accordance with this rule, being always on the right of the target fired at (looking from firing position).

V. *Signals and general rules.*—Signals between battery and range party will not be permitted except as follows:

(a) A large red streamer held aloft by range party will indicate that fire should not commence or should cease. When "downed," that fire can safely commence or continue.

(b) A large red streamer held aloft at the battery will indicate that firing will not commence or has ceased. When "downed," that fire will commence at once and continue until again raised.

(c) The danger flag of the battery is to be downed before commencing fire, but no firing is to take place until the signal is answered by the range party's flag.

(d) All firing will commence at right target (looking from firing position) and continue in order to the left target. Under no circumstances must this rule be violated.

NOTE.—A copy of these instructions and of Memorandum Order No. 9, dated August 5, 1900, from this office, will be carried by all officers during practice.

Unless otherwise ordered, batteries will await instructions in the vicinity of the reservoir.

Special report: At the end of the service practice, battery commanders will submit to this office a report of the total number of premature bursts and breaking up of projectiles; and also the total number of failures of primers from all causes. A "failure" to be understood to mean the failure to explode primer at first command fire.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., August 9, 1900.

Commencing with Problem III, the remaining problems prescribed by Memorandum Order No. 9, this office, will, for purpose of instruction, be equally divided between the lieutenants present for duty with the battery.

In order to carry out the intent of Memorandum Order No. 9, which seems to have been misunderstood, the command of the battery, during the execution of a problem, will be turned over to the lieutenant detailed to execute it. The lieutenant in command will not be assisted or directed in any way by the battery commander.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 10.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., September 2, 1900.

FIELD EXERCISES FOR SEPTEMBER.

Monday of each week: September 3, road march, at least 12 miles; September 10, road march, at least 15 miles; September 17, making and breaking shelter tent camp; September 24, use of individual mess kit.

Shelter tent camp to be pitched and field ration cooked for dinner.

Batteries will go into camp at some suitable place on the reservation, and return after dinner, in time for retreat roll call.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., September 14, 1900.

Problem VIII will be divided in three series of fire of 14, 10, and 10 shell, respectively, at the same range and target, and fired in the following order:

First series: 4 shell for ranging, 10 shell, using tangent sight.

Second series: Same range, 10 shell, using telescopic sight.

Third series: Indirect fire; 10 shell, guns will be run back under cover; target not in view of gunners.

The battery commander will select the method of indirect fire and will detail a different officer (including himself) to take independent control of each series.

The battery commanders will submit to this office without delay copies of daily memorandum record of both range party and battery of all shots fired up to present time on battery service practice.

The completed reports and records of all target practice will be forwarded through the commanding officer, Light Artillery Battalion, as soon as practicable after completion of the season's practice.

By order of Lieutenant-Colonel Rodney.

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum No. 18.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., September 18, 1900.

The battalion target practice prescribed by orders No. 9, April 16, 1900, will take place to-day at 3.30 p. m., at the request and in the presence of Lieutenant-General Miles, commanding the United States Army.

Batteries will leave park at 1.45 p. m., in time to rendezvous at a point on the Ogden road, 500 yards beyond Threemile creek, at 2.45 p. m. They will there await further instructions.

Practice will commence promptly at 3.30 p. m.

The practice will be the execution of the following problem:

CONDITIONS.

The batteries are on the flanks of a strong defensive position of narrow front.

The enemy, represented in the different phases of an attack, by suitable targets, attempt to take the position by a frontal attack on the entrenched infantry line, on each flank of which the batteries are located.

During the advance, cavalry (mounted) (represented by 25 horse silhouettes) attempt a simultaneous oblique charge on both flanks, about 1,200 yards from the batteries.

GROUND.

The ground over which this exercise will take place is entirely unknown to the battery commanders, and all ranges will be unknown.

ALLOWANCE OF AMMUNITION.

Forty shell and 40 shrapnel for each battery.

TARGETS (FOR EACH BATTERY).

I. Three standard in echelon, to represent massed troops before deployment, at long range—about 3,500 yards. Ammunition, 37 shell; time, fifteen minutes.

II. Forty-eight standing silhouettes, to represent second phase of attack, arranged in firing line of sections and supports. Range, about 1,700 yards; ammunition, 3 shell, 13 shrapnel; time, ten minutes.

III. Fifty-seven standing, kneeling, and lying silhouettes, to represent advancing firing line in open order. Range, about 900 yards; ammunition, 13 shrapnel; time, ten minutes.

IV. Twenty-five horse silhouettes, cavalry attack oblique to front on both flanks, about 1,400 yards. Ammunition, 14 shrapnel; time, ten minutes.

Total time of attack should not exceed forty-five minutes.

The effectiveness of fire will be measured entirely by number of hits and destruction of targets.

No range party will be sent out.

Hits for each battery will be counted by an officer of the other battery after the completion of the problem, and report of same made to the adjutant before 9 p. m.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 14.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., October 8, 1900.

Commencing October 8, two field exercises will be executed each week by each battery on days selected by battery commanders. One of these will be a road march not less than 10 nor more than 15 miles; the other, occupying a position on the principles prescribed in Drill Regulations under the head "Artillery in the field." A sketch and report of this exercise to be submitted at the end of the month with the battery report of instruction and drills.

The sketch will show the following:

Location of rendezvous position, fighting battery, reserve, and train, and practicability of ground for the different arms; ranges of prominent objects to the front and flanks; ranges of position that might be occupied by the enemy; lines of retreat; rivers, fords, roads, railroads, bridges, ravines, trees, cultivated ground, walls, fences, etc., will be indicated by the customary topographical signs. Direction will be determined by box compass, short distances by pacing or odometer, ranges by Weldon range finder, using the mean of three observations in each case.

Estimated heights in feet above river will be recorded.

It is intended that the sketch shall show at a glance the field of operations and be sufficiently accurate to enable a battery commander to come into action at once by using the ranges recorded.

After the ranges of prominent objects have been plotted the general features will be sketched in freely in pencil and afterwards inked. The sketch will be to scale one-fourth inch to 100 yards, and should be made as rapidly and accurately as possible. Report of time occupied will be made.

Two sketches will be made by each lieutenant of the battery, under the personal supervision of the battery commander, who will, in his report to this office, make such comments as he may deem necessary.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 15.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., October 15, 1900.

Progressing scheme of instruction, drill, and target practice for Siege Battery O, Seventh Artillery.

1. *October 15 to 31.*—Preparatory training.

1. Fire discipline, including (a) Instruction of officers in all their duties and responsibilities. (b) Instruction of noncommissioned officers and gunners. Laying direct, indirect, reverse. Fuse cutting, range tables. Use of meteorological instruments and tables. Simple electrical apparatus and batteries. (c) Instruction of cannoneers. Manual of the gun, platform laying, installation of pieces in emplacements. Construction of gabions, fascines, mechanical maneuvers. (d) Observation of fire. (1) Ordinary. (2) Exact, including instruction in establishing of base-line angle measuring instruments; plotting; range finding.

2. Mounted drill.

3. Field exercises at least once per week. Completion of construction of sunken 4 gun battery.

4. Signal drill in accordance with regulations and orders.

II. *November 1 to November 30.*—Elementary and service target practice.

Mounted and dismounted drill at guns. Combined maneuvers if practicable.

Special attention will be given to the training of gunners, with a view to commencing target practice November 1.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 18.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., October 29, 1900.

Schedule of target practice for Siege Battery O, Seventh Artillery.

The annual target practice of Siege Battery O, Seventh Artillery, will be as follows: Commencing November 1 and continuing daily (Saturdays and Sundays excepted) until completed. The battery to leave park at 7.30 a. m.

I. Elementary practice (two days.)

(a) Determination of the mean error of the battery (using platforms) at 1,500, 2,500, 3,500, and 4,500 yards (if possible). Twelve percussion shell at each range—3 for each gun. Total, 48.

NOTE.—Ranges will be chained twice and mean taken before the practice commences. All guns to be laid with the (same) quadrant elevation required by the range table for that range, and the resultant elevation by the tangent sight to be recorded. All sights to be set at zero deviation; lateral and longitudinal deviations of points of impact to be measured by tape; their deviation in points to be taken by sight on adjacent gun. Velocity and direction of wind to be recorded.¹ The object of this practice will be to obtain not the mean error of the individual guns, but of the battery as a unit. Forty-eight shell.

(b) Determination of the mean error of the fuse at 2,500 yards. A series of 8 shrapnel from a single gun at same elevation and "cut." The number of hits (if any) on a standard target to be recorded, but elevation and "cut" will not be altered to reach target. Eight shrapnel.

II. Service practice. To test the new carriages, and also firing for accuracy and effect.

Direct fire (one day). Vertical target, 20 by 10 feet. Number of rounds, each piece, 10 percussion shell. Range, about 2,000 yards. Observations, from the base ends. The guns will be fired from hard ground in the vicinity of the platforms, brakes jammed down hard, wheel chocks under wheels. Forty shell.

Curved fire (one day). Horizontal target: The circular target figured in Form 31, General Order No. 41, Adjutant-General's Office, 1896. Center to be marked by barrel, painted white, and line of fire to be shown by stakes 100 yards apart. Observations to be made from the base ends. Piece to be fired from platform. Range, about 3,500 yards. Number of rounds per piece, 10 percussion. Forty shell.

III. Shrapnel firing (one day).

Range finding with the piece. First range about 4,500 yards, 4 ranging shell and 4 shrapnel per piece. Change to range about 3,000 yards, 4 rounds per gun with 4 rounds percussion shell for range-finding purposes. Targets, shrapnel figure targets. Piece to be fired from ground, or from platform if the strain at the range appears to be too much for the brakes, etc. Eight shell, 32 shrapnel.

IV. Breaching (one day). Range about 3,000 yards. Ten rounds per gun percussion shell. Piece to be fired from platform improvised. Forty shell.

V. (One day.) Twenty-four shell to be used as hereafter directed.

The ranges ordered will be selected and measured October 29 and 30, commencing with the short ranges.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

¹Measurements will not be made until the completion of the series at a single range.

[Memorandum.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., November 1, 1900.

For the completion of the 40 field exercises required by Department orders, battery commanders will utilize the remaining twenty days of the period of practical instruction for that purpose.

Not more than half of the remaining "exercises" will be road marches; the rest such exercises as the battery commanders may select.

Battery F has 8 and Battery B 15 exercises to complete the 40 required.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum Order No. 16.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., November 12, 1900.

The balance of the authorized allowance of ammunition will be used in the execution of the following problem:

Problem (same for each battery): Concentration of fire on a single German gun pit, dummy gun, and five cannoneers. Range about 2,500 yards. Target and battery in same horizontal plane.

There will be two series: First, 4 shell and 4 shrapnel. Rapid fire. Time taken from unlimbering to last shot. Fire will then cease and range officer observe, note effect, and repair targets, including gun pit. Second series of 36 shell, F Battery, and 45 for B Battery, from same firing position. Rapid fire. Time taken from first to last shot.

Range officers (Lieutenant Guignard for F and Lieutenant Moses for B Battery) will report "short," "over," height of burst as heretofore for each shot of both series, and in addition dummies hit, total hits on gun, shell impacts in limits of gun pit, effect on epaulement, etc.

Battery commanders will construct gun pits and dummy guns in vicinity of Hay Camp Springs, Tuesday, November 13. Firing position to be in general direction of Estes Gate. F Battery will commence firing at 9 a. m., Wednesday, 14th, B Battery, about 10 a. m., same day.

Dummies and material for dummy gun can be obtained from ordnance sergeant.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

[Memorandum.]

LIGHT ARTILLERY BATTALION,
Fort Riley, Kans., November 12, 1900.

The balance of the ammunition (24 shell) authorized for the target practice of Siege Battery O, Seventh Artillery, will be used in the attack of an earth epaulement constructed at least 12 feet thick, with interior crest at least 4½ feet above surface of ground.

Purpose: To note effect on artificial epaulement. Range about 3,000 yards.

By order of Lieutenant-Colonel Rodney:

LEROY S. LYON,
First Lieutenant Second Artillery, Adjutant.

It has been impossible to have combined maneuvers with cavalry and siege artillery on account of the untrained condition of the cavalry and the temporary absence and target practice of the siege battery.

REMARKS AND RECOMMENDATIONS.

It is urgently recommended that the money already appropriated for construction of stables in the artillery post be at once used for that purpose.

The location of Siege Battery O in the cavalry post is not satisfactory either for discipline or instruction.

The ammunition allowance of 100 rounds per gun, authorized for the target practice of the light batteries, was found to be ample, and the value of the instruction afforded can not be overestimated.

It is recommended that this allowance be made permanent for the instruction of batteries sent to this school; that the tour of duty for a light battery be limited to one year, in order that as many batteries as possible may receive the benefit of this increased allowance of ammunition, and of the instruction and practical training made possible by the extended ranges and varied ground of this reservation.

Light Battery B, Fourth Artillery, has served about four years at the school, Light Battery F, Third Artillery, about two years.

Very respectfully,

GEO. B. RODNEY,
*Lieutenant-Colonel Fourth Artillery,
Commanding Battalion and Post.*

APPENDIX B.

CAVALRY AND LIGHT ARTILLERY SCHOOL,
OFFICE OF THE SECRETARY,
Fort Riley, Kans., November 12, 1900.

The COMMANDANT, CAVALRY AND LIGHT ARTILLERY SCHOOL.

SIR: I have the honor to submit the following report as secretary of the Cavalry and Light Artillery School:

Pursuant to Special Orders, No. 101, paragraph 4, dated June 14, 1900, I assumed the secretaryship of the Cavalry and Light Artillery School, vice First Lieut. John W. Furlong, Sixth Cavalry, relieved.

Owing to the exigencies of the service, several changes have been made in the secretaryship of the school during the present fiscal year, First Lieut. F. C. Marshall, Sixth Cavalry, having assumed the duties of that office January 2, 1899, per Special Orders, No. 3, current series, vice First Lieut. P. E. Traub, First Cavalry, relieved.

Lieutenant Marshall acted in this capacity until March 25, 1900, at which time he was relieved by First Lieut. John W. Furlong, Sixth Cavalry, per Special Orders, No. 44½, paragraph 3, current series.

Financial report for fiscal year ending June 30, 1900.

RECEIPTS.

Received from the Treasurer of the United States.....	\$2,000.00
Received from the sale of duplicate library books.....	12.10
Refund on unfilled order for books	2.00
Total	2,014.10

DISBURSEMENTS.

Printing office (including type, paper, cardboard, repairs to presses, etc.) ..	\$99.26
Office of the secretary (including sketching cases, drawing instruments, office stationery, etc.)	225.71
Library (including steel book stacks, book supports, professional books, books of reference, maps, periodicals, binding, etc.)	1,675.01
Turned into the Treasury of the United States.....	14.12
Total	2,014.10

The library during this year has quadrupled itself in size, an excellent variety of books having been selected and procured, which are made easy of access through the medium of the new steel book stacks with which the library has been equipped.

Nearly every topic of interest to military men has been obtained, though in many respects the number of books bearing on certain important subjects is very limited, and it will require the addition from time to time of new books as the allotment will admit.

A complete catalogue of the library has been prepared in mimeograph form, together with two supplementary issues to the same, comprising all the additions to date. These catalogues have been distributed among the officers of the post for their information and convenience.

It is contemplated to provide the school with a card-index system for the arrangement and location of all subjects contained in the library for immediate reference, and to this end I have been in communication with several of the leading card-index firms of the country to ascertain which system is best adapted for the purpose intended, and it is hoped that out of the next allotment for the school ample provision will be made for the above-mentioned project.

Very respectfully,

A. G. LOTT,
Second Lieutenant Eighth Cavalry, Secretary.

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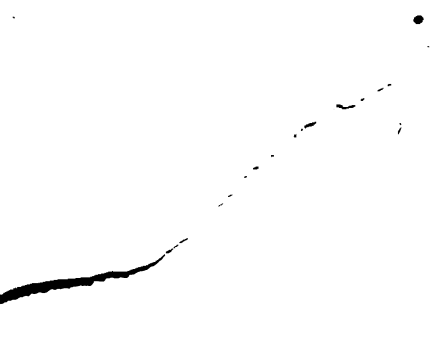
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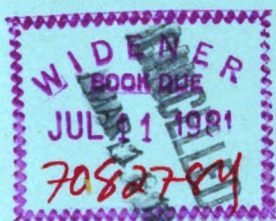
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